# FEDERAL OPERATING PERMIT

A FEDERAL OPERATING PERMIT IS HEREBY ISSUED TO
Nacogdoches Power LLC

AUTHORIZING THE OPERATION OF
Nacogdoches Power Generating Plant
Electric Services

LOCATED AT
Nacogdoches County, Texas
Latitude 31° 49' 52" Longitude 94° 54' 3"
Regulated Entity Number: RN103219127

This permit is issued in accordance with and subject to the Texas Clean Air Act (TCAA), Chapter 382 of the Texas Health and Safety Code and Title 30 Texas Administrative Code Chapter 122 (30 TAC Chapter 122), Federal Operating Permits. Under 30 TAC Chapter 122, this permit constitutes the permit holder's authority to operate the site, emission units and affected source listed in this permit. Operations of the site, emission units and affected source listed in this permit are subject to all additional rules or amended rules and orders of the Commission pursuant to the TCAA.

This permit does not relieve the permit holder from the responsibility of obtaining New Source Review authorization for new, modified, or existing facilities in accordance with 30 TAC Chapter 116, Control of Air Pollution by Permits for New Construction or Modification.

The site, emission units and affected source authorized by this permit shall be operated in accordance with 30 TAC Chapter 122, the general terms and conditions, special terms and conditions, and attachments contained herein.

This permit shall expire five years from the date of issuance. The renewal requirements specified in 30 TAC § 122.241 must be satisfied in order to renew the authorization to operate the site, emission units and affected source.

Permit No: O3455 Issuance Date: _____

_____
For the Commission

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**General Terms and Conditions**

The permit holder shall comply with all terms and conditions contained in 30 TAC § 122.143 (General Terms and Conditions), 30 TAC § 122.144 (Recordkeeping Terms and Conditions), 30 TAC § 122.145 (Reporting Terms and Conditions), and 30 TAC § 122.146 (Compliance Certification Terms and Conditions).

In accordance with 30 TAC § 122.144(1), records of required monitoring data and support information required by this permit, or any applicable requirement codified in this permit, are required to be maintained for a period of five years from the date of the monitoring report, sample, or application unless a longer data retention period is specified in an applicable requirement. The five year record retention period supersedes any less stringent retention requirement that may be specified in a condition of a permit identified in the New Source Review Authorization attachment.

If the permit holder chooses to demonstrate that this permit is no longer required, a written request to void this permit shall be submitted to the Texas Commission on Environmental Quality (TCEQ) by the Responsible Official in accordance with 30 TAC § 122.161(e). The permit holder shall comply with the permit's requirements, including compliance certification and deviation reporting, until notified by the TCEQ that this permit is voided.

The permit holder shall comply with 30 TAC Chapter 116 by obtaining a New Source Review authorization prior to new construction or modification of emission units located in the area covered by this permit.

All reports required by this permit must include in the submittal a cover letter which identifies the following information: company name, TCEQ regulated entity number, air account number (if assigned), site name, area name (if applicable), and Air Permits Division permit number(s).

**Special Terms and Conditions:**

**Emission Limitations and Standards, Monitoring and Testing, and Recordkeeping and Reporting**

1. Permit holder shall comply with the following requirements:

   A. Emission units (including groups and processes) in the Applicable Requirements Summary attachment shall meet the limitations, standards, equipment specifications, monitoring, recordkeeping, reporting, testing, and other requirements listed in the Applicable Requirements Summary attachment to assure compliance with the permit.

   B. The textual description in the column titled "Textual Description" in the Applicable Requirements Summary attachment is not enforceable and is not deemed as a substitute for the actual regulatory language. The Textual Description is provided for information purposes only.

   C. A citation listed on the Applicable Requirements Summary attachment, which has a notation [G] listed before it, shall include the referenced section and subsection for all commission rules, or paragraphs for all federal and state regulations and all subordinate paragraphs, subparagraphs and clauses, subclauses, and items contained within the referenced citation as applicable requirements.

D. When a grouped citation, notated with a [G] in the Applicable Requirements Summary, contains multiple compliance options, the permit holder must keep records of when each compliance option was used.

E. Emission units subject to 40 CFR Part 63, Subparts YYYY, ZZZZ and DDDDD as identified in the attached Applicable Requirements Summary table are subject to 30 TAC Chapter 113, Subchapter C, § 113.1080, § 113.1090 and § 113.1130 which incorporates the 40 CFR Part 63 Subparts by reference.

2. The permit holder shall comply with the following sections of 30 TAC Chapter 101 (General Air Quality Rules):

A. Title 30 TAC § 101.1 (relating to Definitions), insofar as the terms defined in this section are used to define the terms used in other applicable requirements

B. Title 30 TAC § 101.3 (relating to Circumvention)

C. Title 30 TAC § 101.8 (relating to Sampling), if such action has been requested by the TCEQ

D. Title 30 TAC § 101.9 (relating to Sampling Ports), if such action has been requested by the TCEQ

E. Title 30 TAC § 101.10 (relating to Emissions Inventory Requirements)

F. Title 30 TAC § 101.201 (relating to Emission Event Reporting and Recordkeeping Requirements)

G. Title 30 TAC § 101.211 (relating to Scheduled Maintenance, Start-up, and Shutdown Reporting and Recordkeeping Requirements)

H. Title 30 TAC § 101.221 (relating to Operational Requirements)

I. Title 30 TAC § 101.222 (relating to Demonstrations)

J. Title 30 TAC § 101.223 (relating to Actions to Reduce Excessive Emissions)

3. Permit holder shall comply with the following requirements of 30 TAC Chapter 111:

A. Visible emissions from stationary vents with a flow rate of less than 100,000 actual cubic feet per minute and constructed after January 31, 1972 that are not listed in the Applicable Requirements Summary attachment for 30 TAC Chapter 111, Subchapter A, Division 1 , shall not exceed 20% opacity averaged over a six-minute period. The permit holder shall comply with the following requirements for stationary vents at the site subject to this standard:

(i) Title 30 TAC § 111.111(a)(1)(B) (relating to Requirements for Specified Sources)

(ii) Title 30 TAC § 111.111(a)(1)(E)

(iii) Title 30 TAC § 111.111(a)(1)(F)(i), (ii), (iii), or (iv)

(iv) For emission units with vent emissions subject to 30 TAC § 111.111(a)(1)(B), complying with 30 TAC § 111.111(a)(1)(F)(ii), (iii), or (iv), and capable of producing visible emissions from, but not limited to, particulate matter, acid gases and $NO_x$, the permit holder shall also comply with the following periodic monitoring requirements for the purpose of annual compliance certification under 30 TAC § 122.146. These periodic monitoring requirements do not apply to vents that are not capable of producing visible emissions such as vents that emit only colorless VOCs; vents from non-fuming liquids; vents that provide passive ventilation, such as plumbing vents; or vent emissions from any other source that does not obstruct the transmission of light. Vents, as specified in the "Applicable Requirements Summary" attachment, that are subject to the emission limitation of 30 TAC § 111.111(a)(1)(B) are not subject to the following periodic monitoring requirements:

(1) An observation of stationary vents from emission units in operation shall be conducted at least once during each calendar quarter unless the emission unit is not operating for the entire quarter.

(2) For stationary vents from a combustion source, if an alternative to the normally fired fuel is fired for a period greater than or equal to 24 consecutive hours, the permit holder shall conduct an observation of the stationary vent for each such period to determine if visible emissions are present. If such period is greater than 3 months, observations shall be conducted once during each quarter. Supplementing the normally fired fuel with natural gas or fuel gas to increase the net heating value to the minimum required value does not constitute creation of an alternative fuel.

(3) Records of all observations shall be maintained.

(4) Visible emissions observations of emission units operated during daylight hours shall be conducted no earlier than one hour after sunrise and no later than one hour before sunset. Visible emissions observations of emission units operated only at night must be made with additional lighting and the temporary installation of contrasting backgrounds. Visible emissions observations shall be made during times when the activities described in 30 TAC § 111.111(a)(1)(E) are not taking place. Visible emissions shall be determined with each stationary vent in clear view of the observer. The observer shall be at least 15 feet, but not more than 0.25 mile, away from each stationary vent during the observation. For outdoor locations, the observer shall select a position where the sun is not directly in the observer's eyes. When condensed water vapor is present within the plume, as it emerges from the emissions outlet, observations must be made beyond the point in the plume at which condensed water vapor is no longer visible. When water vapor within the plume condenses and becomes visible at a distance from the emissions outlet, the observation shall be evaluated at the outlet prior to condensation of water vapor. A certified opacity reader is not required for visible emissions observations.

(5) Compliance Certification:

(a) If visible emissions are not present during the observation, the RO may certify that the source is in compliance with the applicable opacity requirement in 30 TAC § 111.111(a)(1) and (a)(1)(B).

(b) However, if visible emissions are present during the observation, the permit holder shall either list this occurrence as a deviation on the next deviation report as required under 30 TAC § 122.145(2) or conduct the appropriate opacity test specified in 30 TAC § 111.111(a)(1)(F) as soon as practicable, but no later than 24 hours after observing visible emissions to determine if the source is in compliance with the opacity requirements. If an opacity test is performed and the source is determined to be in compliance, the RO may certify that the source is in compliance with the applicable opacity requirement. However, if an opacity test is performed and the source is determined to be out of compliance, the permit holder shall list this occurrence as a deviation on the next deviation report as required under 30 TAC § 122.145(2). The opacity test must be performed by a certified opacity reader.

(c) Some vents may be subject to multiple visible emission or monitoring requirements. All credible data must be considered when certifying compliance with this requirement even if the observation or monitoring was performed to demonstrate compliance with a different requirement.

B. For visible emissions from a building, enclosed facility, or other structure; the permit holder shall comply with the following requirements:

(i) Title 30 TAC § 111.111(a)(7)(A) (relating to Requirements for Specified Sources)

(ii) Title 30 TAC § 111.111(a)(7)(B)(i) or (ii)

(iii) For a building containing an air emission source, enclosed facility, or other structure containing or associated with an air emission source subject to 30 TAC § 111.111(a)(7)(A), complying with 30 TAC § 111.111(a)(7)(B)(i) or (ii), and capable of producing visible emissions from, but not limited to, particulate matter, acid gases and $NO_x$, the permit holder shall also comply with the following periodic monitoring requirements for the purpose of annual compliance certification under 30 TAC § 122.146:

(1) An observation of visible emissions from a building containing an air emission source, enclosed facility, or other structure containing or associated with an air emission source which is required to comply with 30 TAC § 111.111(a)(7)(A) shall be conducted at least once during each calendar quarter unless the

air emission source or enclosed facility is not operating for the entire quarter.

(2) Records of all observations shall be maintained.

(3) Visible emissions observations of air emission sources or enclosed facilities operated during daylight hours shall be conducted no earlier than one hour after sunrise and no later than one hour before sunset. Visible emissions observations of air emission sources or enclosed facilities operated only at night must be made with additional lighting and the temporary installation of contrasting backgrounds. Visible emissions shall be determined with each emissions outlet in clear view of the observer. The observer shall be at least 15 feet, but not more than 0.25 mile, away from each emissions outlet during the observation. For outdoor locations, the observer shall select a position where the sun is not directly in the observer's eyes. When condensed water vapor is present within the plume, as it emerges from the emissions outlet, observations must be made beyond the point in the plume at which condensed water vapor is no longer visible. When water vapor within the plume condenses and becomes visible at a distance from the emissions outlet, the observation shall be evaluated at the outlet prior to condensation of water vapor. A certified opacity reader is not required for visible emissions observations.

(4) Compliance Certification:

(a) If visible emissions are not present during the observation, the RO may certify that the source is in compliance with the applicable opacity requirement in 30 TAC § 111.111(a)(7) and (a)(7)(A)

(b) However, if visible emissions are present during the observation, the permit holder shall either list this occurrence as a deviation on the next deviation report as required under 30 TAC § 122.145(2) or conduct the appropriate opacity test specified in 30 TAC § 111.111(a)(7)(B) as soon as practicable, but no later than 24 hours after observing visible emissions to determine if the source is in compliance with the opacity requirements. If an opacity test is performed and the source is determined to be in compliance, the RO may certify that the source is in compliance with the applicable opacity requirement. However, if an opacity test is performed and the source is determined to be out of compliance, the permit holder shall list this occurrence as a deviation on the next deviation report as required under 30 TAC § 122.145(2). The opacity test must be performed by a certified opacity reader

C. For visible emissions from all other sources not specified in 30 TAC § 111.111(a)(1), (4), or (7); the permit holder shall comply with the following requirements:

(i) Title 30 TAC § 111.111(a)(8)(A) (relating to Requirements for Specified Sources)

(ii) Title 30 TAC § 111.111(a)(8)(B)(i) or (ii)

(iii) For a source subject to 30 TAC § 111.111(a)(8)(A), complying with 30 TAC § 111.111(a)(8)(B)(i) or (ii), and capable of producing visible emissions from, but not limited to, particulate matter, acid gases and $NO_x$, the permit holder shall also comply with the following periodic monitoring requirements for the purpose of annual compliance certification under 30 TAC § 122.146:

(1) An observation of visible emissions from a source which is required to comply with 30 TAC § 111.111(a)(8)(A) shall be conducted at least once during each calendar quarter unless the source is not operating for the entire quarter.

(2) Records of all observations shall be maintained.

(3) Visible emissions observations of sources operated during daylight hours shall be conducted no earlier than one hour after sunrise and no later than one hour before sunset. Visible emissions observations of sources operated only at night must be made with additional lighting and the temporary installation of contrasting backgrounds. Visible emissions shall be determined with each source in clear view of the observer. The observer shall be at least 15 feet, but not more than 0.25 mile, away from each source during the observation. For outdoor locations, the observer shall select a position where the sun is not directly in the observer's eyes. When condensed water vapor is present within the plume, as it emerges from the emissions outlet, observations must be made beyond the point in the plume at which condensed water vapor is no longer visible. When water vapor within the plume condenses and becomes visible at a distance from the emissions outlet, the observation shall be evaluated at the outlet prior to condensation of water vapor. A certified opacity reader is not required for visible emissions observations.

(4) Compliance Certification:

(a) If visible emissions are not present during the observation, the RO may certify that the source is in compliance with the applicable opacity requirement in 30 TAC § 111.111(a)(8) and (a)(8)(A)

(b) However, if visible emissions are present during the observation, the permit holder shall either list this occurrence as a deviation on the next deviation report as required under 30 TAC § 122.145(2) or conduct the appropriate opacity test specified in 30 TAC § 111.111(a)(8)(B) as soon as practicable, but no later than 24 hours after observing visible emissions to determine if the source is in compliance with the opacity requirements. If an opacity test is performed and the

source is determined to be in compliance, the RO may certify that the source is in compliance with the applicable opacity requirement. However, if an opacity test is performed and the source is determined to be out of compliance, the permit holder shall list this occurrence as a deviation on the next deviation report as required under 30 TAC § 122.145(2). The opacity test must be performed by a certified opacity reader.

D. For emission units with contributions from uncombined water, the permit holder shall comply with the requirements of 30 TAC § 111.111(b).

E. Emission limits on nonagricultural processes, except for the steam generators specified in 30 TAC § 111.153, shall comply with the following requirements:

(i) Emissions of PM from any source may not exceed the allowable rates as required in 30 TAC § 111.151(a) (relating to Allowable Emissions Limits)

(ii) Sources with an effective stack height ($h_e$) less than the standard effective stack height ($H_e$), must reduce the allowable emission level by multiplying it by $[h_e/H_e]^2$ as required in 30 TAC § 111.151(b)

(iii) Effective stack height shall be calculated by the equation specified in 30 TAC § 111.151(c)

4. The permit holder shall comply with the following requirements for units subject to any subpart of 40 CFR Part 60, unless otherwise stated in the applicable subpart:

A. Title 40 CFR § 60.7 (relating to Notification and Recordkeeping)

B. Title 40 CFR § 60.8 (relating to Performance Tests)

C. Title 40 CFR § 60.11 (relating to Compliance with Standards and Maintenance Requirements)

D. Title 40 CFR § 60.12 (relating to Circumvention)

E. Title 40 CFR § 60.13 (relating to Monitoring Requirements)

F. Title 40 CFR § 60.14 (relating to Modification)

G. Title 40 CFR § 60.15 (relating to Reconstruction)

H. Title 40 CFR § 60.19 (relating to General Notification and Reporting Requirements)

5. The permit holder shall comply with the requirements of 30 TAC Chapter 113, Subchapter C, § 113.100 for units subject to any subpart of 40 CFR Part 63, unless otherwise stated in the applicable subpart.

**Additional Monitoring Requirements**

6. Unless otherwise specified, the permit holder shall comply with the compliance assurance monitoring requirements as specified in the attached "CAM Summary" upon issuance of the permit. In addition, the permit holder shall comply with the following:

   A. The permit holder shall comply with the terms and conditions contained in 30 TAC § 122.147 (General Terms and Conditions for Compliance Assurance Monitoring).

   B. The permit holder shall report, consistent with the averaging time identified in the "CAM Summary," deviations as defined by the deviation limit in the "CAM Summary." Any monitoring data below a minimum limit or above a maximum limit, that is collected in accordance with the requirements specified in 40 CFR § 64.7(c), shall be reported as a deviation. Deviations shall be reported according to 30 TAC § 122.145 (Reporting Terms and Conditions).

   C. The permit holder may elect to collect monitoring data on a more frequent basis and average the data, consistent with the averaging time specified in the "CAM Summary," for purposes of determining whether a deviation has occurred. However, the additional data points must be collected on a regular basis. In no event shall data be collected and used in particular instances in order to avoid reporting deviations. All monitoring data shall be collected in accordance with the requirements specified in 40 CFR § 64.7(c).

   D. The permit holder shall operate the monitoring, identified in the attached "CAM Summary," in accordance with the provisions of 40 CFR § 64.7.

   E. The permit holder shall comply with the requirements of 40 CFR § 70.6(a)(3)(ii)(A) and 30 TAC § 122.144(1)(A)-(F) for documentation of all required inspections.

7. The permit holder shall comply with the periodic monitoring requirements as specified in the attached "Periodic Monitoring Summary" upon issuance of the permit. Except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the permit holder shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the pollutant-specific emissions unit is operating. The permit holder may elect to collect monitoring data on a more frequent basis and average the data, consistent with the averaging time specified in the "Periodic Monitoring Summary," for purposes of determining whether a deviation has occurred. However, the additional data points must be collected on a regular basis. In no event shall data be collected and used in particular instances to avoid reporting deviations. Deviations shall be reported according to 30 TAC § 122.145 (Reporting Terms and Conditions).

**New Source Review Authorization Requirements**

8. Permit holder shall comply with the requirements of New Source Review authorizations issued or claimed by the permit holder for the permitted area, including permits, permits by rule, standard permits, flexible permits, special permits, permits for existing facilities including Voluntary Emissions Reduction Permits and Electric Generating Facility Permits issued under 30 TAC Chapter 116, Subchapter I, or special exemptions

referenced in the New Source Review Authorization References attachment. These requirements:

A. Are incorporated by reference into this permit as applicable requirements

B. Shall be located with this operating permit

C. Are not eligible for a permit shield

9. The permit holder shall comply with the general requirements of 30 TAC Chapter 106, Subchapter A or the general requirements, if any, in effect at the time of the claim of any PBR.

10. The permit holder shall maintain records to demonstrate compliance with any emission limitation or standard that is specified in a permit by rule (PBR) or Standard Permit listed in the New Source Review Authorizations attachment. The records shall yield reliable data from the relevant time period that are representative of the emission unit's compliance with the PBR or Standard Permit. These records may include, but are not limited to, production capacity and throughput, hours of operation, safety data sheets (SDS), chemical composition of raw materials, speciation of air contaminant data, engineering calculations, maintenance records, fugitive data, performance tests, capture/control device efficiencies, direct pollutant monitoring (CEMS, COMS, or PEMS), or control device parametric monitoring. These records shall be made readily accessible and available as required by 30 TAC § 122.144. Any monitoring or recordkeeping data indicating noncompliance with the PBR or Standard Permit shall be considered and reported as a deviation according to 30 TAC § 122.145 (Reporting Terms and Conditions).

**Compliance Requirements**

11. The permit holder shall certify compliance in accordance with 30 TAC § 122.146. The permit holder shall comply with 30 TAC § 122.146 using at a minimum, but not limited to, the continuous or intermittent compliance method data from monitoring, recordkeeping, reporting, or testing required by the permit and any other credible evidence or information. The certification period may not exceed 12 months and the certification must be submitted within 30 days after the end of the period being certified.

12. Use of Discrete Emission Credits to comply with the applicable requirements:

A. Unless otherwise prohibited, the permit holder may use discrete emission credits to comply with the following applicable requirements listed elsewhere in this permit:

(i) Title 30 TAC Chapter 115

(ii) Title 30 TAC Chapter 117

(iii) If applicable, offsets for Title 30 TAC Chapter 116

(iv) Temporarily exceed state NSR permit allowables

B. The permit holder shall comply with the following requirements in order to use the credit to comply with the applicable requirements:

(i) The permit holder must notify the TCEQ according to 30 TAC § 101.376(d)

(ii) The discrete emission credits to be used must meet all the geographic, timeliness, applicable pollutant type, and availability requirements listed in 30 TAC Chapter 101, Subchapter H, Division 4

(iii) The executive director has approved the use of the discrete emission credits according to 30 TAC § 101.376(d)(1)(A)

(iv) The permit holder keeps records of the use of credits towards compliance with the applicable requirements in accordance with 30 TAC § 101.372(h) and 30 TAC Chapter 122

(v) Title 30 TAC § 101.375 (relating to Emission Reductions Achieved Outside the United States)

**Protection of Stratospheric Ozone**

13. Permit holders at a site subject to Title VI of the FCAA Amendments shall meet the following requirements for protection of stratospheric ozone:

A. Any on site servicing, maintenance, and repair on refrigeration and nonmotor vehicle air-conditioning appliances using ozone-depleting refrigerants or non-exempt substitutes shall be conducted in accordance with 40 CFR Part 82, Subpart F. Permit holders shall ensure that repairs on or refrigerant removal from refrigeration and nonmotor vehicle air-conditioning appliances using ozone-depleting refrigerants are performed only by properly certified technicians using certified equipment. Records shall be maintained as required by 40 CFR Part 82, Subpart F.

**Permit Location**

14. The permit holder shall maintain a copy of this permit and records related to requirements listed in this permit on site.

**Permit Shield (30 TAC § 122.148)**

15. A permit shield is granted for the emission units, groups, or processes specified in the attached "Permit Shield." Compliance with the conditions of the permit shall be deemed compliance with the specified potentially applicable requirements or specified potentially applicable state-only requirements listed in the attachment "Permit Shield." Permit shield provisions shall not be modified by the executive director until notification is provided to the permit holder. No later than 90 days after notification of a change in a determination made by the executive director, the permit holder shall apply for the appropriate permit revision to reflect the new determination. Provisional terms are not eligible for this permit shield. Any term or condition, under a permit shield, shall not be protected by the permit shield if it is replaced by a provisional term or condition or the basis of the term and condition changes.

**Acid Rain Permit Requirements**

16. For unit BFB-1 (identified in the Certificate of Representation as unit BFB-1), located at the affected source identified by ORIS/Facility code 55708, the designated

representative and the owner or operator, as applicable, shall comply with the following Acid Rain Permit requirements.

A. General Requirements

(i) Under 30 TAC § 122.12(1) and 40 CFR Part 72, the Acid Rain Permit requirements contained here are a separable portion of the Federal Operating Permit (FOP) and have an independent public comment process which may be separate from, or combined with the FOP.

(ii) The owner and operator shall comply with the requirements of 40 CFR Part 72 and 40 CFR Part 76. Any noncompliance with the Acid Rain Permit will be considered noncompliance with the FOP and may be subject to enforcement action.

(iii) The owners and operators of the affected source shall operate the source and the unit in compliance with the requirements of this Acid Rain Permit and all other applicable State and federal requirements.

(iv) The owners and operators of the affected source shall comply with the General Terms and Conditions of the FOP that incorporates this Acid Rain Permit.

(v) The term for the Acid Rain permit shall commence with the issuance of the FOP that incorporates the Acid Rain permit and shall be run concurrent with the remainder of the term of the FOP. Renewal of the Acid Rain permit shall coincide with the renewal of the FOP that incorporates the Acid Rain permit and subsequent terms shall be no more than five years from the date of renewal of the FOP and run concurrent with the permit term of the FOP.

B. Monitoring Requirements

(i) The owners and operators, and the designated representative, of the affected source and each affected unit at the source shall comply with the monitoring requirements contained 40 CFR Part 75.

(ii) The emissions measurements recorded and reported in accordance with 40 CFR Part 75 and any other credible evidence shall be used to determine compliance by the affected source with the acid rain emissions limitations and emissions reduction requirements for $SO_2$ and $NO_x$ under the ARP.

(iii) The requirements of 40 CFR Part 75 shall not affect the responsibility of the owners and operators to monitor emission of other pollutants or other emissions characteristics at the unit under other applicable requirements of the FCAA Amendments (42 U.S.C. 7401, as amended November 15, 1990) and other terms and conditions of the operating permit for the source.

C. $SO_2$ emissions requirements

(i) The owners and operators of each source and each affected unit at the source shall comply with the applicable acid rain emissions limitations for $SO_2$.

(ii) As of the allowance transfer deadline the owners and operators of the affected source and each affected unit at the source shall hold, in the unit's compliance subaccount, allowances in an amount not less than the total annual emissions of $SO_2$ for the previous calendar year.

(iii) Each ton of $SO_2$ emitted in excess of the acid rain emissions limitations for $SO_2$ shall constitute a separate violation of the FCAA amendments.

(iv) An affected unit shall be subject to the requirements under (i) and (ii) of the $SO_2$ emissions requirements as follows:

(1) Starting January 1, 2000, an affected unit under 40 CFR § 72.6(a)(2); or

(2) Starting on the later of January 1, 2000 or the deadline for monitor certification under 40 CFR Part 75, an affected unit under 40 CFR § 72.6(a)(3).

(v) Allowances shall be held in, deducted from, or transferred into or among Allowance Tracking System accounts in accordance with the requirements of the ARP.

(vi) An allowance shall not be deducted, for compliance with the requirements of this permit, in a calendar year before the year for which the allowance was allocated.

(vii) An allowance allocated by the EPA Administrator or under the ARP is a limited authorization to emit $SO_2$ in accordance with the ARP. No provision of the ARP, Acid Rain permit application, this Acid Rain Permit, or an exemption under 40 CFR §§ 72.7 or 72.8 and no provision of law shall be construed to limit the authority of the United States to terminate or limit such authorization.

(viii) An allowance allocated by the EPA Administrator under the ARP does not constitute a property right.

D. $NO_x$ Emission Requirements

(i) The owners and operators of the source and each affected unit at the source shall comply with the applicable acid rain emissions limitations for $NO_x$ under 40 CFR Part 76.

E. Excess emissions requirements for $SO_2$ and $NO_x$.

(i) The designated representative of an affected unit that has excess emissions in any calendar year shall submit a proposed offset plan, as required under 40 CFR Part 77.

(ii) If an affected source has excess emissions in any calendar year shall, as required by 40 CFR Part 77:

(1) Pay, without demand, the penalty required and pay, upon demand, the interest on that penalty.

(2) Comply with the terms of an approved offset plan.

F. Recordkeeping and Reporting Requirements

(i) Unless otherwise provided, the owners and operators of the affected source and each affected unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time before the end of 5 years, in writing by the permitting authority or the EPA Administrator.

(1) The certificate of representation for the designated representative for the source and each affected unit and all documents that demonstrate the truth of the statements in the certificate of representation, in accordance with 40 CFR § 72.24; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such documents are superseded because of the submission of a new certificate of representation changing the designated representative.

(2) All emissions monitoring information, in accordance with 40 CFR Part 75, provided that to the extent that 40 CFR Part 75 provides for a 3-year period for recordkeeping (rather than a five-year period cited in 30 TAC § 122.144), the 3-year period shall apply.

(3) Copies of all reports, compliance certifications, and other submissions and all records made or required under the ARP or relied upon for compliance certification.

(4) Copies of all documents used to complete an acid rain permit application and any other submission under the ARP or to demonstrate compliance with the requirements of the ARP.

(ii) The designated representative of an affected source and each affected unit at the source shall submit the reports required under the ARP including those under 40 CFR Part 72, Subpart I and 40 CFR Part 75.

G. Liability

(i) Any person who knowingly violates any requirement or prohibition of the ARP, a complete acid rain permit application, an acid rain permit, or a written exemption under 40 CFR §§ 72.7 or 72.8, including any requirement for the payment of any penalty owed to the United States, shall be subject to enforcement pursuant to FCAA § 113(c).

(ii) Any person who knowingly makes a false, material statement in any record, submission, or report under the ARP shall be subject to criminal enforcement pursuant to FCAA § 113(c) and 18 U.S.C. 1001.

(iii) No permit revision shall excuse any violation of the requirements of the ARP that occurs prior to the date that the revision takes effect.

(iv) The affected source and each affected unit shall meet the requirements of the ARP contained in 40 CFR Parts 72 through 78.

(v) Any provision of the ARP that applies to an affected source or the designated representative of an affected source shall also apply to the owners and operators of such source and of the affected units at the source.

(vi) Any provision of the ARP that applies to an affected unit (including a provision applicable to the DR of an affected unit) shall also apply to the owners and operators of such unit. Except as provided under 40 CFR § 72.44 (Phase II repowering extension plans) and 40 CFR § 76.11 ($NO_x$ averaging plans), and except with regard to the requirements applicable to units with a common stack under 40 CFR Part 75 (including 40 CFR §§ 75.16, 75.17, and 75.18), the owners and operators and the DR of one affected unit shall not be liable for any violation by any other affected unit of which they are not owners or operators or the DR and that is located at a source of which they are not owners or operators or the DR.

(vii) Each violation of a provision of 40 CFR Parts 72, 73, 74, 75, 76, 77, and 78 by an affected source or affected unit, or by an owner or operator or DR of such source or unit, shall be a separate violation of the FCAA Amendments.

H. Effect on other authorities. No provision of the ARP, an acid rain permit application, an acid rain permit, or an exemption under 40 CFR §§ 72.7 or 72.8 shall be construed as:

(i) Except as expressly provided in Title IV of the FCAA Amendments, exempting or excluding the owners and operators and, to the extent applicable, the DR of an affected source or affected unit from compliance with any other provision of the FCAA Amendments, including the provisions of Title I of the FCAA Amendments relating to applicable National Ambient Air Quality Standards or State Implementation Plans.

(ii) Limiting the number of allowances a unit can hold; provided, that the number of allowances held by the unit shall not affect the source's obligation to comply with any other provisions of the FCAA Amendments.

(iii) Requiring a change of any kind in any state law regulating electric utility rates and charges, affecting any state law regarding such state regulation, or limiting such state regulation, including any prudence review requirements under such state law.

(iv) Modifying the Federal Power Act or affecting the authority of the Federal Energy Regulatory Commission under the Federal Power Act; or,

(v) Interfering with or impairing any program for competitive bidding for power supply in a state in which such program is established.

I. The number of $SO_2$ allowances allocated by the EPA in 40 CFR Part 73 is enforceable only by the EPA Administrator.

**Clean Air Interstate Rule Permit Requirements**

17. For unit BFB-1 (identified in the Certificate of Representation as unit BFB-1), located at the site identified by ORIS/Facility code 55708, the designated representative and the owner or operator, as applicable, shall comply with the following Clean Air Interstate Rule (CAIR) Permit requirements. Until approval of the Texas CAIR SIP by EPA, the permit holder shall comply with the equivalent requirements of 40 CFR Part 97 in place of the referenced 40 CFR Part 96 requirements in the Texas CAIR permit and 30 TAC Chapter 122 requirements.

A. General Requirements

(i) Under 30 TAC § 122.420(b) and 40 CFR §§ 96.120(b) and 96.220(b) the CAIR Permit requirements contained here are a separable portion of the Federal Operating Permit (FOP).

(ii) The owners and operators of the CAIR $NO_x$ and the CAIR $SO_2$ source shall operate the source and the unit in compliance with the requirements of this CAIR permit and all other applicable State and federal requirements.

(iii) The owners and operators of the CAIR $NO_x$ and the CAIR $SO_2$ source shall comply with the General Terms and Conditions of the FOP that incorporates this CAIR Permit.

(iv) The term for the initial CAIR permit shall commence with the issuance of the revision containing the CAIR permit and shall be the remaining term for the FOP that incorporates the CAIR permit. Renewal of the initial CAIR permit shall coincide with the renewal of the FOP that incorporates the CAIR permit and subsequent terms shall be no more than five years from the date of renewal of the FOP and run concurrent with the permit term of the FOP.

B. Monitoring and Reporting Requirements

(i) The owners and operators, and the CAIR designated representative, of the CAIR $NO_x$ source and each CAIR $NO_x$ unit at the source shall comply with the monitoring, reporting, and recordkeeping requirements contained 40 CFR Part 96, Subpart HH.

(ii) The owners and operators, and the CAIR designated representative, of the CAIR $SO_2$ source and each CAIR $SO_2$ unit at the source shall comply with the monitoring, reporting, and recordkeeping requirements contained 40 CFR Part 96, Subpart HHH.

(iii) The emissions measurements recorded and reported in accordance with 40 CFR Part 96, Subpart HH and any other credible evidence shall be used to determine compliance by the CAIR $NO_x$ source with the CAIR $NO_x$ emissions limitation.

(iv) The emissions measurements recorded and reported in accordance with 40 CFR Part 96, Subpart HHH and any other credible evidence shall be used to determine compliance by the CAIR $SO_2$ source with the CAIR $SO_2$ emissions limitation.

C. $NO_x$ emissions requirements

(i) As of the allowance transfer deadline for a control period, the owners and operators of the CAIR $NO_x$ source and each CAIR $NO_x$ unit at the source shall hold, in the source's compliance account, CAIR $NO_x$ allowances available for compliance deductions for the control period under 40 CFR § 96.154(a) in an amount not less than the tons of total nitrogen oxides emissions for the control period from all CAIR $NO_x$ units at the source, as determined in accordance with the requirements of 40 CFR Part 96, Subpart HH.

(ii) A CAIR $NO_x$ unit shall be subject to the requirements of paragraph C.(i) of this CAIR Permit starting on the later of January 1, 2009, or the deadline for meeting the unit's monitor certification requirements under 40 CFR § 96.170(b)(1), (2), or (5).

(iii) A CAIR $NO_x$ allowance shall not be deducted, for compliance with the requirements of this permit, for a control period in a calendar year before the year for which the CAIR $NO_x$ allowance was allocated.

(iv) CAIR $NO_x$ allowances shall be held in, deducted from or transferred into or among CAIR $NO_x$ Allowance Tracking System accounts in accordance with the requirements of 40 CFR Part 96, Subpart FF or Subpart GG.

(v) A CAIR $NO_x$ allowance is a limited authorization to emit one ton of nitrogen oxides in accordance with the CAIR $NO_x$ Annual Trading Program. No provision of the CAIR $NO_x$ Annual Trading Program, the CAIR permit application, the CAIR permit, or an exemption under 40 CFR § 96.105 and no provision of law shall be construed to limit the authority of the State or the United States to terminate or limit such authorization.

(vi) A CAIR $NO_x$ allowance does not constitute a property right.

(vii) Upon recordation by the Administrator under 40 CFR Part 96, Subpart FF or Subpart GG, every allocation, transfer, or deduction of a CAIR $NO_x$ allowance to or from a CAIR $NO_x$ unit's compliance account is incorporated automatically in this CAIR permit.

D. $NO_x$ excess emissions requirement

(i) If a CAIR $NO_x$ source emits nitrogen oxides during any control period in excess of the CAIR $NO_x$ emissions limitation, the owners and operators of the source and each CAIR $NO_x$ unit at the source shall surrender the CAIR $NO_x$ allowances required for deduction under 40 CFR § 96.154(d)(1) and pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Clean Air Act or applicable State law.

(ii) Each ton of such excess emissions and each day of such control period shall constitute a separate violation of 40 CFR Part 96, Subpart AA, the Clean Air Act, and applicable State law.

E. $SO_2$ emissions requirements

(i) As of the allowance transfer deadline for a control period, the owners and operators of the CAIR $SO_2$ source and each CAIR $SO_2$ unit at the source shall hold, in the source's compliance account, CAIR $SO_2$ allowances available for compliance deductions for the control period under 40 CFR § 96.254(a) and (b) in an amount not less than the tons of total sulfur dioxides emissions for the control period from all CAIR $SO_2$ units at the source, as determined in accordance with the requirements of 40 CFR Part 96, Subpart HHH.

(ii) A CAIR $SO_2$ unit shall be subject to the requirements of paragraph E.(i) of this CAIR Permit starting on the later of January 1, 2010, or the deadline for meeting the unit's monitor certification requirements under 40 CFR § 96.270(b)(1), (2), or (5).

(iii) A CAIR $SO_2$ allowance shall not be deducted, for compliance with the requirements of this permit, for a control period in a calendar year before the year for which the CAIR $SO_2$ allowance was allocated.

(iv) CAIR $SO_2$ allowances shall be held in, deducted from, or transferred into or among CAIR $SO_2$ Allowance Tracking System accounts in accordance with the requirements of 40 CFR Part 96, Subpart FFF or Subpart GGG.

(v) A CAIR $SO_2$ allowance is a limited authorization to emit sulfur dioxide in accordance with the CAIR $SO_2$ Trading Program. No provision of the CAIR $SO_2$ Trading Program, the CAIR permit application, the CAIR permit, or an exemption under 40 CFR § 96.205 and no provision of law shall be construed to limit the authority of the State or the United States to terminate or limit such authorization.

(vi) A CAIR $SO_2$ allowance does not constitute a property right.

(vii) Upon recordation by the Administrator under 40 CFR Part 96, Subpart FFF or Subpart GGG, every allocation, transfer, or deduction of a CAIR $SO_2$ allowance to or from a CAIR $SO_2$ unit's compliance account is incorporated automatically in this CAIR permit.

F. $SO_2$ excess emissions requirements

(i) If a CAIR $SO_2$ source emits sulfur dioxides during any control period in excess of the CAIR $SO_2$ emissions limitation, the owners and operators of the source and each CAIR $SO_2$ unit at the source shall surrender the CAIR $SO_2$ allowances required for deduction under 40 CFR § 96.254(d)(1) and pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Clean Air Act or applicable State law.

(ii) Each ton of such excess emissions and each day of such control period shall constitute a separate violation of 40 CFR Part 96, Subpart AAA, the Clean Air Act, and applicable State law.

G. Recordkeeping and Reporting Requirements

(i) Unless otherwise provided, the owners and operators of the CAIR $NO_x$ source and each CAIR $NO_x$ unit at the source and the CAIR $SO_2$ source and

each CAIR $SO_2$ unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time before the end of 5 years, in writing by the permitting authority or the Administrator.

(1) The certificate of representation under 40 CFR §§ 96.113 and 96.213 for the CAIR $NO_x$ designated representative for the source and each CAIR $NO_x$ unit and the CAIR $SO_2$ designated representative for the source and each CAIR $SO_2$ unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation; provided that the certificate and documents shall be retained on site at the source beyond such 5 year period until such documents are superseded because of the submission of a new certificate of representation under 40 CFR §§ 96.113 and 96.213 changing the CAIR designated representative.

(2) All emissions monitoring information, in accordance with 40 CFR Part 96, Subpart HH and Subpart HHH, provided that to the extent that these subparts provide for a 3-year period for recordkeeping, the 3-year period shall apply.

(3) Copies of all reports, compliance certifications, and other submissions and all records made or required under the CAIR $NO_x$ Annual Trading Program and CAIR $SO_2$ Trading Program or relied upon for compliance determinations.

(4) Copies of all documents used to complete a CAIR permit application and any other submission under the CAIR $NO_x$ Annual Trading Program and CAIR $SO_2$ Trading Program or to demonstrate compliance with the requirements of the CAIR $NO_x$ Annual Trading Program and CAIR $SO_2$ Trading Program.

(ii) The CAIR designated representative of a CAIR $NO_x$ source and each CAIR $NO_x$ unit at the source and a CAIR $SO_2$ source and each CAIR $SO_2$ unit at the source shall submit the reports required under the CAIR $NO_x$ Annual Trading Program and the CAIR $SO_2$ Trading Program including those under 40 CFR Part 96, Subpart HH and Subpart HHH.

H. The CAIR $NO_x$ source and each CAIR $NO_x$ unit shall meet the requirements of the CAIR $NO_x$ Annual Trading Program contained in 40 CFR Part 96, Subparts AA through II.

I. The CAIR $SO_2$ source and each CAIR $SO_2$ unit shall meet the requirements of the CAIR $SO_2$ Trading Program contained in 40 CFR Part 96, Subparts AAA through III.

J. Any provision of the CAIR $NO_x$ Annual Trading Program and the CAIR $SO_2$ Trading Program that applies to a CAIR $NO_x$ source or CAIR $SO_2$ source or the CAIR designated representative of a CAIR $NO_x$ source or CAIR $SO_2$ source shall also apply to the owners and operators of such source and the units at the source.

K. Any provision of the CAIR $NO_x$ Annual Trading Program and the CAIR $SO_2$ Trading Program that applies to a CAIR $NO_x$ unit or CAIR $SO_2$ unit or the CAIR designated representative of a CAIR $NO_x$ unit or CAIR $SO_2$ unit shall also apply to the owners and operators of such unit.

L. No provision of the CAIR $NO_x$ Annual Trading Program, CAIR $SO_2$ Trading Program, a CAIR permit application, a CAIR permit, or an exemption under 40 CFR §§ 96.105 or 96.205 shall be construed as exempting or excluding the owners and operators, and the CAIR designated representative, of a CAIR $NO_x$ source or CAIR $NO_x$ unit or a CAIR $SO_2$ source or CAIR $SO_2$ unit from compliance with any other provision of the applicable, approved State implementation plan, a federally enforceable permit, or the Clean Air Act.

## Attachments

**Applicable Requirements Summary**

**Additional Monitoring Requirements**

**Permit Shield**

**New Source Review Authorization References**

## Applicable Requirements Summary



Note: A "none" entry may be noted for some emission sources in this permit's "Applicable Requirements Summary" under the heading of "Monitoring and Testing Requirements" and/or "Recordkeeping Requirements" and/or "Reporting Requirements." Such a notation indicates that there are no requirements for the indicated emission source as identified under the respective column heading(s) for the stated portion of the regulation when the emission source is operating under the conditions of the specified SOP Index Number. However, other relevant requirements pursuant to 30 TAC Chapter 122 including Recordkeeping Terms and Conditions (30 TAC § 122.144), Reporting Terms and Conditions (30 TAC § 122.145), and Compliance Certification Terms and Conditions (30 TAC § 122.146) continue to apply.

## Unit Summary

| Unit/Group/ Process ID No. | Unit Type | Group/Inclusive Units | SOP Index No. | Regulation | Requirement Driver |
|---|---|---|---|---|---|
| BFB-1 | BOILERS/STEAM GENERATORS/STEAM GENERATING UNITS | N/A | 60Db | 40 CFR Part 60, Subpart Db | No changing attributes. |
| BFB-1 | BOILERS/STEAM GENERATORS/STEAM GENERATING UNITS | N/A | 63DDDDD | 40 CFR Part 63, Subpart DDDDD | No changing attributes. |
| BFB-1S | EMISSION POINTS/STATIONARY VENTS/PROCESS VENTS | N/A | R1151 | 30 TAC Chapter 111, Nonagricultural Processes | No changing attributes. |
| BFB-1S | EMISSION POINTS/STATIONARY VENTS/PROCESS VENTS | N/A | R1111 | 30 TAC Chapter 111, Visible Emissions | No changing attributes. |
| CT-1 | EMISSION POINTS/STATIONARY VENTS/PROCESS VENTS | N/A | R1111 | 30 TAC Chapter 111, Visible Emissions | No changing attributes. |
| CTG-1 | STATIONARY TURBINES | N/A | 60KKKK | 40 CFR Part 60, Subpart KKKK | No changing attributes. |
| CTG-1 | STATIONARY TURBINES | N/A | 60TTTT | 40 CFR Part 60, Subpart TTTT | No changing attributes. |
| CTG-1 | STATIONARY TURBINES | N/A | 63YYYY | 40 CFR Part 63, Subpart YYYY | No changing attributes. |
| CTG1-STK | EMISSION POINTS/STATIONARY VENTS/PROCESS VENTS | N/A | R1151 | 30 TAC Chapter 111, Nonagricultural Processes | No changing attributes. |
| CTG1-STK | EMISSION POINTS/STATIONARY VENTS/PROCESS VENTS | N/A | R1111 | 30 TAC Chapter 111, Visible Emissions | No changing attributes. |

## Unit Summary

| Unit/Group/ Process ID No. | Unit Type | Group/Inclusive Units | SOP Index No. | Regulation | Requirement Driver |
|---|---|---|---|---|---|
| EMGEN-2 | SRIC ENGINES | N/A | 60IIII | 40 CFR Part 60, Subpart IIII | No changing attributes. |
| EMGEN-2 | SRIC ENGINES | N/A | 63ZZZZ | 40 CFR Part 63, Subpart ZZZZ | No changing attributes. |
| FWPUMP-2 | SRIC ENGINES | N/A | 60IIII | 40 CFR Part 60, Subpart IIII | No changing attributes. |
| FWPUMP-2 | SRIC ENGINES | N/A | 63ZZZZ | 40 CFR Part 63, Subpart ZZZZ | No changing attributes. |
| HTR1 | BOILERS/STEAM GENERATORS/STEAM GENERATING UNITS | N/A | 63DDDDD | 40 CFR Part 63, Subpart DDDDD | No changing attributes. |
| PROPHTR | BOILERS/STEAM GENERATORS/STEAM GENERATING UNITS | N/A | 63DDDDD | 40 CFR Part 63, Subpart DDDDD | No changing attributes. |

## Applicable Requirements Summary

| Unit Group Process ID No. | Unit Group Process Type | SOP Index No. | Pollutant | State Rule or Federal Regulation Name | Emission Limitation, Standard or Equipment Specification Citation | Textual Description (See Special Term and Condition 1.B.) | Monitoring And Testing Requirements | Recordkeeping Requirements (30 TAC § 122.144) | Reporting Requirements (30 TAC § 122.145) |
|---|---|---|---|---|---|---|---|---|---|
| BFB-1 | EU | 60Db | $SO_2$ | 40 CFR Part 60, Subpart Db | § 60.42b(k)(1)<br>§ 60.42b(e)<br>[G]§ 60.42b(f)<br>§ 60.42b(g)<br>§ 60.45b(a) | Except as provided in §60.42b(k)(2)-(4) on and after the §60.8 tests, no facility for which construction, reconstruction, or modification began after February 28, 2005, that combusts coal, oil, natural gas, a mixture of these fuels, or a mixture of these fuels with any other fuels shall discharge SO2 in excess of 87 ng/J (0.20 lb/MMBtu) heat input or 8 percent (0.08) of the potential SO2 emission rate (92 percent reduction) and 520 ng/J (1.2 lb/MMBtu) heat input. | § 60.45b(b)<br>§ 60.45b(c)<br>§ 60.45b(c)(1)<br>§ 60.45b(f)<br>§ 60.45b(g)<br>§ 60.45b(h)<br>[G]§ 60.47b(a)<br>§ 60.47b(c)<br>§ 60.47b(d)<br>[G]§ 60.47b(e) | [G]§ 60.47b(a)<br>[G]§ 60.49b(d)<br>§ 60.49b(o) | § 60.49b(a)<br>§ 60.49b(a)(1)<br>§ 60.49b(a)(3)<br>§ 60.49b(b)<br>§ 60.49b(j)<br>§ 60.49b(k)<br>§ 60.49b(k)(1)<br>§ 60.49b(k)(10)<br>§ 60.49b(k)(11)<br>§ 60.49b(k)(2)<br>§ 60.49b(k)(3)<br>§ 60.49b(k)(4)<br>§ 60.49b(k)(5)<br>§ 60.49b(k)(6)<br>§ 60.49b(k)(8)<br>§ 60.49b(k)(9)<br>[G]§ 60.49b(n)<br>§ 60.49b(v)<br>§ 60.49b(w) |
| BFB-1 | EU | 60Db | PM | 40 CFR Part 60, Subpart Db | § 60.43b(h)(1)<br>§ 60.43b(e)<br>§ 60.43b(g)<br>§ 60.46b(a) | No facility for which construction, reconstruction, or modification began after February 28, 2005, and that combusts coal, oil, wood, a mixture of these fuels, or a mixture of these fuels with any other fuels shall discharge PM in excess of 13 ng/J (0.030 lb/MMBtu) heat input. | § 60.46b(b)<br>§ 60.46b(d)<br>§ 60.46b(d)(1)<br>[G]§ 60.46b(d)(2)<br>§ 60.46b(d)(3)<br>§ 60.46b(d)(4)<br>§ 60.46b(d)(5)<br>[G]§ 60.46b(d)(6) | [G]§ 60.49b(d)<br>§ 60.49b(o) | § 60.49b(a)<br>§ 60.49b(a)(1)<br>§ 60.49b(a)(3) |

## Applicable Requirements Summary

| Unit Group Process ID No. | Unit Group Process Type | SOP Index No. | Pollutant | State Rule or Federal Regulation Name | Emission Limitation, Standard or Equipment Specification Citation | Textual Description (See Special Term and Condition 1.B.) | Monitoring And Testing Requirements | Recordkeeping Requirements (30 TAC § 122.144) | Reporting Requirements (30 TAC § 122.145) |
|---|---|---|---|---|---|---|---|---|---|
| BFB-1 | EU | 60Db | PM (OPACITY) | 40 CFR Part 60, Subpart Db | § 60.43b(f)<br>§ 60.43b(g)<br>§ 60.46b(a) | On/after §60.8 tests, no facility firing specified fuels shall discharge gases exhibiting greater than 20% opacity (6-minute average), except for one 6-minute/hour of not more than 27% opacity. | § 60.46b(d)<br>§ 60.46b(d)(7)<br>§ 60.48b(a)<br>§ 60.48b(e)<br>§ 60.48b(e)(1) | § 60.48b(a)<br>[G]§ 60.49b(d)<br>[G]§ 60.49b(f)<br>§ 60.49b(o) | § 60.49b(a)<br>§ 60.49b(a)(1)<br>§ 60.49b(a)(3)<br>§ 60.49b(b)<br>§ 60.49b(h)<br>§ 60.49b(h)(3)<br>§ 60.49b(v)<br>§ 60.49b(w) |
| BFB-1 | EU | 60Db | $NO_x$ | 40 CFR Part 60, Subpart Db | § 60.44b(l)(1)<br>§ 60.44b(h)<br>§ 60.44b(i)<br>§ 60.46b(a) | Affected facilities combusting coal, oil, or natural gas, or a mixture of these fuels, or any other fuels: a limit of 86 ng/JI (0.20 lb/million Btu) heat input unless the affected facility meets the specified requirements. | § 60.46b(c)<br>§ 60.46b(e)<br>§ 60.46b(e)(1)<br>§ 60.46b(e)(3)<br>[G]§ 60.48b(b)<br>§ 60.48b(c)<br>§ 60.48b(d)<br>§ 60.48b(e)<br>[G]§ 60.48b(e)(2)<br>§ 60.48b(e)(3)<br>§ 60.48b(f) | [G]§ 60.48b(b)<br>§ 60.48b(c)<br>[G]§ 60.49b(d)<br>[G]§ 60.49b(g)<br>§ 60.49b(o) | § 60.49b(a)<br>§ 60.49b(a)(1)<br>§ 60.49b(a)(3)<br>§ 60.49b(b)<br>§ 60.49b(h)<br>§ 60.49b(i)<br>§ 60.49b(v)<br>§ 60.49b(w) |
| BFB-1 | EU | 63DDDDD | 112(B) HAPS | 40 CFR Part 63, Subpart DDDDD | § 63.7505 The permit holder shall comply with the applicable limitation, standard and/or equipment specification requirements of 40 CFR Part 63, Subpart DDDDD | The permit holder shall comply with the applicable requirements of 40 CFR Part 63, Subpart DDDDD | The permit holder shall comply with the applicable monitoring and testing requirements of 40 CFR Part 63, Subpart DDDDD | The permit holder shall comply with the applicable recordkeeping requirements of 40 CFR Part 63, Subpart DDDDD | The permit holder shall comply with the applicable reporting requirements of 40 CFR Part 63, Subpart DDDDD |

## Applicable Requirements Summary

| Unit Group Process ID No. | Unit Group Process Type | SOP Index No. | Pollutant | State Rule or Federal Regulation Name | Emission Limitation, Standard or Equipment Specification Citation | Textual Description (See Special Term and Condition 1.B.) | Monitoring And Testing Requirements | Recordkeeping Requirements (30 TAC § 122.144) | Reporting Requirements (30 TAC § 122.145) |
|---|---|---|---|---|---|---|---|---|---|
| BFB-1S | EP | R1151 | PM | 30 TAC Chapter 111, Nonagricultural Processes | § 111.151(a)<br>§ 111.151(c) | No person may cause, suffer, allow, or permit emissions of particulate matter from any source to exceed the allowable rates specified in Table 1 as follows, except as provided by §111.153 of this title (relating to Emissions Limits for Steam Generators). | ** See CAM Summary | None | None |
| BFB-1S | EP | R1111 | PM (OPACITY) | 30 TAC Chapter 111, Visible Emissions | § 111.111(a)(1)(B)<br>§ 111.111(a)(1)(C)<br>§ 111.111(a)(1)(E) | Visible emissions from any stationary vent shall not exceed an opacity of 20% averaged over a six minute period for any source on which construction was begun after January 31, 1972. | § 111.111(a)(1)(D)<br>[G]§ 111.111(a)(1)(F) | § 111.111(a)(1)(C)<br>§ 111.111(a)(1)(D) | None |
| CT-1 | EP | R1111 | PM (OPACITY) | 30 TAC Chapter 111, Visible Emissions | § 111.111(a)(1)(C)<br>§ 111.111(a)(1)(E) | Visible emissions from any stationary vent shall not exceed an opacity of 15% averaged over a six minute period for any source with a total flow rate of at least 100,000 acfm unless a CEMS is installed. | [G]§ 111.111(a)(1)(F)<br>** See Periodic Monitoring Summary | None | None |
| CTG-1 | EU | 60KKKK | $NO_x$ | 40 CFR Part 60, Subpart KKKK | § 60.4320(a)-Table 1<br>§ 60.4320(a)<br>§ 60.4320(b)<br>§ 60.4325<br>§ 60.4333(a)<br>§ 60.4335(b)(1)<br>[G]§ 60.4345 | New, modified, or reconstructed turbine firing natural gas with a heat input at peak load > 850 MMBtu/h must meet the nitrogen oxides emission standard of 15 ppm at 15 percent $O_2$. | § 60.4335(b)(1)<br>[G]§ 60.4345<br>§ 60.4350(a)<br>§ 60.4350(b)<br>§ 60.4350(c)<br>§ 60.4350(d)<br>§ 60.4350(e)<br>§ 60.4350(f) | [G]§ 60.4345<br>§ 60.4350(b) | [G]§ 60.4345<br>§ 60.4350(d)<br>§ 60.4375(a)<br>§ 60.4380<br>[G]§ 60.4380(b)<br>§ 60.4395 |

## Applicable Requirements Summary

| Unit Group Process ID No. | Unit Group Process Type | SOP Index No. | Pollutant | State Rule or Federal Regulation Name | Emission Limitation, Standard or Equipment Specification Citation | Textual Description (See Special Term and Condition 1.B.) | Monitoring And Testing Requirements | Recordkeeping Requirements (30 TAC § 122.144) | Reporting Requirements (30 TAC § 122.145) |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | § 60.4350(g)<br>[G]§ 60.4400(a)<br>§ 60.4400(b)<br>§ 60.4400(b)(1)<br>§ 60.4400(b)(4)<br>§ 60.4400(b)(5)<br>§ 60.4400(b)(6)<br>[G]§ 60.4405 | | |
| CTG-1 | EU | 60KKKK | $SO_2$ | 40 CFR Part 60, Subpart KKKK | § 60.4330(a)(2)<br>§ 60.4333(a) | You must not burn in the subject stationary combustion turbine any fuel which contains total potential sulfur emissions in excess of 26 ng SO2/J (0.060 lb SO2/MMBtu) heat input. If your turbine simultaneously fires multiple fuels, each fuel must meet this requirement. | § 60.4365<br>§ 60.4365(a)<br>§ 60.4415(a)<br>§ 60.4415(a)(1)<br>§ 60.4415(a)(1)(ii) | § 60.4365(a) | § 60.4375(a) |
| CTG-1 | EU | 60TTTT | $CO_2$ | 40 CFR Part 60, Subpart TTTT | § 60.5509<br>The permit holder shall comply with the applicable limitation, standard and/or equipment specification requirements of 40 CFR Part 60, Subpart TTTT | The permit holder shall comply with the applicable requirements of 40 CFR Part 60, Subpart TTTT | The permit holder shall comply with the applicable monitoring and testing requirements of 40 CFR Part 60, Subpart TTTT | The permit holder shall comply with the applicable recordkeeping requirements of 40 CFR Part 60, Subpart TTTT | The permit holder shall comply with the applicable reporting requirements of 40 CFR Part 60, Subpart TTTT |

## Applicable Requirements Summary

| Unit Group Process ID No. | Unit Group Process Type | SOP Index No. | Pollutant | State Rule or Federal Regulation Name | Emission Limitation, Standard or Equipment Specification Citation | Textual Description (See Special Term and Condition 1.B.) | Monitoring And Testing Requirements | Recordkeeping Requirements (30 TAC § 122.144) | Reporting Requirements (30 TAC § 122.145) |
|---|---|---|---|---|---|---|---|---|---|
| CTG-1 | EU | 63YYYY | 112(B) HAPS | 40 CFR Part 63, Subpart YYYY | § 63.6095(d) | If you start up a new or reconstructed stationary combustion turbine that is a lean premix gas-fired stationary combustion turbine or diffusion flame gas-fired stationary combustion turbine as defined by this subpart, you must comply with the Initial Notification requirements set forth in §63.6145 but need not comply with any other requirement of this subpart until EPA takes final action to require compliance. | None | None | § 63.6145(a)<br>§ 63.6145(b)<br>§ 63.6145(c)<br>§ 63.6145(d) |
| CTG1-STK | EP | R1151 | PM | 30 TAC Chapter 111, Nonagricultural Processes | § 111.151(a)<br>§ 111.151(c) | No person may cause, suffer, allow, or permit emissions of particulate matter from any source to exceed the allowable rates specified in Table 1 as follows, except as provided by §111.153 of this title (relating to Emissions Limits for Steam Generators). | ** See Periodic Monitoring Summary | None | None |
| CTG1-STK | EP | R1111 | PM (OPACITY) | 30 TAC Chapter 111, Visible Emissions | § 111.111(a)(1)(C)<br>§ 111.111(a)(1)(E) | Visible emissions from any stationary vent shall not exceed an opacity of 15% averaged over a six minute period for any source with a total flow rate of at least 100,000 | [G]§ 111.111(a)(1)(F)<br>** See Periodic Monitoring Summary | None | None |

## Applicable Requirements Summary

| Unit Group Process ID No. | Unit Group Process Type | SOP Index No. | Pollutant | State Rule or Federal Regulation Name | Emission Limitation, Standard or Equipment Specification Citation | Textual Description (See Special Term and Condition 1.B.) | Monitoring And Testing Requirements | Recordkeeping Requirements (30 TAC § 122.144) | Reporting Requirements (30 TAC § 122.145) |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | acfm unless a CEMS is installed. | | | |
| EMGEN-2 | EU | 60IIII | CO | 40 CFR Part 60, Subpart IIII | § 60.4205(b)<br>§ 60.4202(a)(2)<br>§ 60.4206<br>§ 60.4207(b)<br>[G]§ 60.4211(a)<br>§ 60.4211(c)<br>[G]§ 60.4211(f)<br>§ 60.4218<br>§ 89.112(a) | Owners and operators of emergency stationary CI ICE, that are not fire pump engines, with a maximum engine power greater than or equal to 130 KW and less than or equal to 2237 KW and a displacement of less than 10 liters per cylinder and is a 2007 model year and later must comply with a CO emission limit of 3.5 g/KW-hr, as stated in 40 CFR 60.4202(a)(2) and 40 CFR 89.112(a). | § 60.4209(a) | § 60.4214(b) | None |
| EMGEN-2 | EU | 60IIII | NMHC and $NO_x$ | 40 CFR Part 60, Subpart IIII | § 60.4205(b)<br>§ 60.4202(a)(2)<br>§ 60.4206<br>§ 60.4207(b)<br>[G]§ 60.4211(a)<br>§ 60.4211(c)<br>[G]§ 60.4211(f)<br>§ 60.4218<br>§ 89.112(a) | Owners and operators of emergency stationary CI ICE, that are not fire pump engines, with a maximum engine power greater than 560 KW and less than or equal to 2237 KW and a displacement of less than 10 liters per cylinder and is a 2007 model year and later must comply with an NMHC+NOx emission limit of 6.4 g/KW-hr, as stated in 40 CFR 60.4202(a)(2) and 40 CFR 89.112(a). | § 60.4209(a) | § 60.4214(b) | None |

## Applicable Requirements Summary

| Unit Group Process ID No. | Unit Group Process Type | SOP Index No. | Pollutant | State Rule or Federal Regulation Name | Emission Limitation, Standard or Equipment Specification Citation | Textual Description (See Special Term and Condition 1.B.) | Monitoring And Testing Requirements | Recordkeeping Requirements (30 TAC § 122.144) | Reporting Requirements (30 TAC § 122.145) |
|---|---|---|---|---|---|---|---|---|---|
| EMGEN-2 | EU | 60IIII | PM (OPACITY) | 40 CFR Part 60, Subpart IIII | § 60.4205(b)<br>§ 60.4202(a)(2)<br>§ 60.4206<br>§ 60.4207(b)<br>[G]§ 60.4211(a)<br>§ 60.4211(c)<br>[G]§ 60.4211(f)<br>§ 60.4218<br>§ 89.113(a)(1)<br>§ 89.113(a)(2)<br>§ 89.113(a)(3) | Emergency stationary CI ICE, that are not fire pump engines, with displacement < 10 lpc and not constant-speed engines, with max engine power < 2237 KW and a 2007 model year and later or max engine power > 2237 KW and a 2011 model year and later, must comply with following opacity emission limits: 20% during acceleration, 15% during lugging, 50% during peaks in either acceleration or lugging modes as stated in §60.4202(a)(1)-(2), (b)(2) and §89.113(a)(1)-(3) and §1039.105(b)(1)-(3). | § 60.4209(a) | § 60.4214(b) | None |
| EMGEN-2 | EU | 60IIII | PM | 40 CFR Part 60, Subpart IIII | § 60.4205(b)<br>§ 60.4202(a)(2)<br>§ 60.4206<br>§ 60.4207(b)<br>[G]§ 60.4211(a)<br>§ 60.4211(c)<br>[G]§ 60.4211(f)<br>§ 60.4218<br>§ 89.112(a) | Owners and operators of emergency stationary CI ICE, that are not fire pump engines, with a maximum engine power greater than or equal to 130 KW and less than or equal to 2237 KW and a displacement of less than 10 liters per cylinder and is a 2007 model year and later must comply with a PM emission limit of 0.20 g/KW-hr, as stated in 40 CFR 60.4202(a)(2) and 40 | § 60.4209(a) | § 60.4214(b) | None |

## Applicable Requirements Summary

| Unit Group Process ID No. | Unit Group Process Type | SOP Index No. | Pollutant | State Rule or Federal Regulation Name | Emission Limitation, Standard or Equipment Specification Citation | Textual Description (See Special Term and Condition 1.B.) | Monitoring And Testing Requirements | Recordkeeping Requirements (30 TAC § 122.144) | Reporting Requirements (30 TAC § 122.145) |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | CFR 89.112(a). | | | |
| EMGEN-2 | EU | 63ZZZZ | EXEMPT | 40 CFR Part 63, Subpart ZZZZ | § 63.6590(b)(1)<br>§ 63.6595(c)<br>§ 63.6640(f)(1)<br>[G]§ 63.6640(f)(2)<br>§ 63.6640(f)(3) | An affected source which meets either of the criteria in paragraphs §63.6590(b)(1)(i)-(ii) of this section does not have to meet the requirements of this subpart and of subpart A of this part except for the initial notification requirements of §63.6645(f). | None | None | § 63.6645(c)<br>§ 63.6645(f) |
| FWPUMP-2 | EU | 60IIII | NMHC and $NO_x$ | 40 CFR Part 60, Subpart IIII | § 60.4205(c)-Table 4<br>§ 60.4206<br>§ 60.4207(b)<br>[G]§ 60.4211(a)<br>§ 60.4211(c)<br>[G]§ 60.4211(f)<br>§ 60.4218 | Owners and operators of emergency stationary fire pump CI ICE with a maximum engine power greater than or equal to 130 KW and less than or equal to 560 KW and a displacement of less than 30 liters per cylinder and is a 2009 model year and later must comply with an NMHC+NOx emission limit of 4.0 g/KW-hr, as listed in Table 4 to this subpart. | § 60.4209(a) | § 60.4214(b) | None |
| FWPUMP-2 | EU | 60IIII | PM | 40 CFR Part 60, Subpart IIII | § 60.4205(c)-Table 4<br>§ 60.4206<br>§ 60.4207(b)<br>[G]§ 60.4211(a)<br>§ 60.4211(c)<br>[G]§ 60.4211(f)<br>§ 60.4218 | Owners and operators of emergency stationary fire pump CI ICE with a maximum engine power greater than or equal to 130 KW and less than or equal to 560 KW and a displacement of less than | § 60.4209(a) | § 60.4214(b) | None |

## Applicable Requirements Summary

| Unit Group Process ID No. | Unit Group Process Type | SOP Index No. | Pollutant | State Rule or Federal Regulation Name | Emission Limitation, Standard or Equipment Specification Citation | Textual Description (See Special Term and Condition 1.B.) | Monitoring And Testing Requirements | Recordkeeping Requirements (30 TAC § 122.144) | Reporting Requirements (30 TAC § 122.145) |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | 30 liters per cylinder and is a 2009 model year and later must comply with a PM emission limit of 0.20 g/KW-hr, as listed in Table 4 to this subpart. | | | |
| FWPUMP-2 | EU | 63ZZZZ | 112(B) HAPS | 40 CFR Part 63, Subpart ZZZZ | § 63.6590(c) | Stationary RICE subject to Regulations under 40 CFR Part 60. An affected source that meets any of the criteria in paragraphs (c)(1) through (7) of this section must meet the requirements of this part by meeting the requirements of 40 CFR part 60 subpart IIII, for compression ignition engines or 40 CFR part 60 subpart JJJJ, for spark ignition engines as applicable. No further requirements apply for such engines under this part. | None | None | None |
| HTR1 | EU | 63DDDDD | 112(B) HAPS | 40 CFR Part 63, Subpart DDDDD | § 63.7505 The permit holder shall comply with the applicable limitation, standard and/or equipment specification requirements of 40 CFR Part 63, | The permit holder shall comply with the applicable requirements of 40 CFR Part 63, Subpart DDDDD | The permit holder shall comply with the applicable monitoring and testing requirements of 40 CFR Part 63, Subpart DDDDD | The permit holder shall comply with the applicable recordkeeping requirements of 40 CFR Part 63, Subpart DDDDD | The permit holder shall comply with the applicable reporting requirements of 40 CFR Part 63, Subpart DDDDD |

## Applicable Requirements Summary

| Unit Group Process ID No. | Unit Group Process Type | SOP Index No. | Pollutant | State Rule or Federal Regulation Name | Emission Limitation, Standard or Equipment Specification Citation | Textual Description (See Special Term and Condition 1.B.) | Monitoring And Testing Requirements | Recordkeeping Requirements (30 TAC § 122.144) | Reporting Requirements (30 TAC § 122.145) |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | Subpart DDDDD | | | | |
| PROPHTR | EU | 63DDDDD | 112(B) HAPS | 40 CFR Part 63, Subpart DDDDD | § 63.7505 The permit holder shall comply with the applicable limitation, standard and/or equipment specification requirements of 40 CFR Part 63, Subpart DDDDD | The permit holder shall comply with the applicable requirements of 40 CFR Part 63, Subpart DDDDD | The permit holder shall comply with the applicable monitoring and testing requirements of 40 CFR Part 63, Subpart DDDDD | The permit holder shall comply with the applicable recordkeeping requirements of 40 CFR Part 63, Subpart DDDDD | The permit holder shall comply with the applicable reporting requirements of 40 CFR Part 63, Subpart DDDDD |

## Additional Monitoring Requirements

**CAM Summary**

| **Unit/Group/Process Information** | |
|---|---|
| ID No.: BFB-1S | |
| Control Device ID No.: F01 | Control Device Type: Fabric Filter |
| **Applicable Regulatory Requirement** | |
| Name: 30 TAC Chapter 111, Nonagricultural Processes | SOP Index No.: R1151 |
| Pollutant: PM | Main Standard: § 111.151(a) |
| **Monitoring Information** | |
| Indicator: Opacity | |
| Minimum Frequency: six times per minute | |
| Averaging Period: six-minute | |
| Deviation Limit: Opacity measurement that is greater than 10% averaged over a six-minute period. | |
| CAM Text: The COMS shall be operated in accordance with 40 CFR § 60.13. | |

## Periodic Monitoring Summary

| **Unit/Group/Process Information** | |
|---|---|
| ID No.: CT-1 | |
| Control Device ID No.: N.A. | Control Device Type: Unknown CD Type |
| **Applicable Regulatory Requirement** | |
| Name: 30 TAC Chapter 111, Visible Emissions | SOP Index No.: R1111 |
| Pollutant: PM (OPACITY) | Main Standard: § 111.111(a)(1)(C) |
| **Monitoring Information** | |
| Indicator: Visible Emissions | |
| Minimum Frequency: Once per quarter | |
| Averaging Period: N.A. | |
| Deviation Limit: Occurrence of visible emissions having an opacity that is greater than 15% shall be reported as a deviation. | |
| Periodic Monitoring Text: Visible emissions observations shall be made and recorded. Note that to properly determine the presence of visible emissions, all sources must be in clear view of the observer. The observer shall be at least 15 feet, but not more than 0.25 miles, away from the emission source during the observation. The observer shall select a position where the sun is not directly in the observer's eyes. If the observations cannot be conducted due to weather conditions, the date, time, and specific weather conditions shall be recorded. When condensed water vapor is present within the plume, as it emerges from the emissions outlet, observations must be made beyond the point in the plume at which condensed water vapor is no longer visible. When water vapor within the plume condenses and becomes visible at a distance from the emissions outlet, the observation shall be evaluated at the outlet prior to condensation of water vapor.<br><br>If visible emissions are observed, the permit holder shall report a deviation. As an alternative, the permit holder may determine the opacity consistent with Test Method 9, as soon as practicable, but no later than 24 hours after observing visible emissions.<br><br>If the result of the Test Method 9 is an opacity above the corresponding opacity limit, the permit holder shall report a deviation. | |

## Periodic Monitoring Summary

| **Unit/Group/Process Information** | |
|---|---|
| ID No.: CTG1-STK | |
| Control Device ID No.: N/A | Control Device Type: N/A |
| **Applicable Regulatory Requirement** | |
| Name: 30 TAC Chapter 111, Visible Emissions | SOP Index No.: R1111 |
| Pollutant: PM (OPACITY) | Main Standard: § 111.111(a)(1)(C) |
| **Monitoring Information** | |
| Indicator: Fuel Type | |
| Minimum Frequency: Annually | |
| Averaging Period: n/a | |
| Deviation Limit: Firing of alternate fuel. | |
| Periodic Monitoring Text: Record the type of fuel used by the unit. If an alternate fuel is fired, either alone or in combination with the specified gas, it shall be considered and reported as a deviation. | |

## Periodic Monitoring Summary

| **Unit/Group/Process Information** | |
|---|---|
| ID No.: CTG1-STK | |
| Control Device ID No.: N/A | Control Device Type: N/A |
| **Applicable Regulatory Requirement** | |
| Name: 30 TAC Chapter 111, Nonagricultural Processes | SOP Index No.: R1151 |
| Pollutant: PM | Main Standard: § 111.151(a) |
| **Monitoring Information** | |
| Indicator: Fuel Type | |
| Minimum Frequency: Annually | |
| Averaging Period: n/a | |
| Deviation Limit: Firing of alternate fuel. | |
| Periodic Monitoring Text: Record the type of fuel used by the unit. If an alternate fuel is fired, either alone or in combination with the specified gas, it shall be considered and reported as a deviation. | |

## Permit Shield

## Permit Shield

The Executive Director of the TCEQ has determined that the permit holder is not required to comply with the specific regulation(s) identified for each emission unit, group, or process in this table.

| Unit/Group/Process | | Regulation | Basis of Determination |
|---|---|---|---|
| ID No. | Group/Inclusive Units | | |
| BFB-1 | N/A | 30 TAC Chapter 117, Subchapter E, Division 1 | Nacogdoches County is not a named county under this division. |
| BFB-1 | N/A | 40 CFR Part 60, Subpart Da | The boiler does not fire more than 250 MMBTU/hr of fossil fuels. The boiler is meeting the requirements of 40 CFR 60, Subpart Db. |
| BFB-1 | N/A | 40 CFR Part 60, Subpart Dc | The boiler has a maximum design heat input capacity greater than 29 MW (100 MMBtu/hr). |
| BFB-1 | N/A | 40 CFR Part 60, Subpart TTTT | Construction of the boiler commenced prior to January 8, 2014. |
| BFB-1 | N/A | 40 CFR Part 63, Subpart JJJJJJ | The site is a major source of HAPs. |
| BLASTING | N/A | 40 CFR Part 63, Subpart XXXXXX | Facility is not “primarily engaged” in dry abrasive blasting operations. |
| CT-1 | N/A | 40 CFR Part 63, Subpart Q | Cooling tower unit is not operated with chromium-based water treatment chemicals. |
| CTG1LO-VNT | N/A | 30 TAC Chapter 115, Vent Gas Controls | Nacogdoches County is not a named county under this division. |
| EMGEN-2 | N/A | 30 TAC Chapter 117, Subchapter E, Division 1 | The unit is not an electric power boiler or gas turbine. |
| FSILO1 | N/A | 40 CFR Part 60, Subpart OOO | Facility is not a nonmetallic mineral processing plant as defined in 60.671. |

## Permit Shield

The Executive Director of the TCEQ has determined that the permit holder is not required to comply with the specific regulation(s) identified for each emission unit, group, or process in this table.

| Unit/Group/Process | | Regulation | Basis of Determination |
|---|---|---|---|
| ID No. | Group/Inclusive Units | | |
| FSILO2 | N/A | 40 CFR Part 60, Subpart OOO | Facility is not a nonmetallic mineral processing plant as defined in 60.671. |
| FWPUMP-2 | N/A | 30 TAC Chapter 117, Subchapter E, Division 1 | The unit is not an electric power boiler or gas turbine. |
| GRP-DIESELTK | TK-DSL-1, TK-DSL-2, TK-DSL-3 | 40 CFR Part 60, Subpart Kb | The storage capacity for each unit is less than 75 m^3 (19,800 gal). |
| HTR1 | N/A | 40 CFR Part 60, Subpart Dc | The unit has heat input less than 2.9 MW (10 MMBtu/hr) and is not a steam generating unit. |
| LIME-DC | N/A | 40 CFR Part 60, Subpart OOO | Facility is not a nonmetallic mineral processing plant as defined in 60.671. |
| LVSTG-1 | N/A | 30 TAC Chapter 115, Vent Gas Controls | Nacogdoches County is not a named county under this division. |
| OIL-LOAD | N/A | 30 TAC Chapter 115, Loading and Unloading of VOC | Non-gasoline VOC loading/unloading operations in Nacogdoches County are exempt from the requirements of this division. |
| PAINTING | N/A | 40 CFR Part 63, Subpart MMMM | Surface coating operations performed at a facility maintenance area are not subject to this subpart. |
| PARTWSH | N/A | 30 TAC Chapter 115, Surface Coating Operations | Nacogdoches County is not a named county under this division. |
| PARTWSH | N/A | 40 CFR Part 63, Subpart T | The parts washer solvent contains less than 5% hazardous air pollutants. |

## Permit Shield

The Executive Director of the TCEQ has determined that the permit holder is not required to comply with the specific regulation(s) identified for each emission unit, group, or process in this table.

| Unit/Group/Process | | Regulation | Basis of Determination |
|---|---|---|---|
| ID No. | Group/Inclusive Units | | |
| PROPHTR | N/A | 40 CFR Part 60, Subpart Dc | The unit has heat input less than 2.9 MW (10 MMBtu/hr) and is not a steam generating unit. |
| WOODFUG | AUTOPILE, C-10/11, C-2, C-5, C-6, C-8, MANPILE, TR-1, TR-10, TR-11, TR-12, TR-2, TR-3, TR-4, TR-5, TR-6, TR-7, TR-8, TR-9, TRK, WDPROC-DC, WDPROC-FUG | 40 CFR Part 60, Subpart OOO | Facility is not a nonmetallic mineral processing plant as defined in 60.671. |

## New Source Review Authorization References

## New Source Review Authorization References

The New Source Review authorizations listed in the table below are applicable requirements under 30 TAC Chapter 122 and enforceable under this operating permit.

| **Prevention of Significant Deterioration (PSD) Permits** | |
|---|---|
| PSD Permit No.: GHGPSDTX116 | Issuance Date: 03/01/2016 |
| PSD Permit No.: PSDTX1061M1 | Issuance Date: 07/20/2016 |
| **Title 30 TAC Chapter 116 Permits, Special Permits, and Other Authorizations (Other Than Permits By Rule, PSD Permits, or NA Permits) for the Application Area.** | |
| Authorization No.: 77679 | Issuance Date: 07/20/2016 |
| **Permits By Rule (30 TAC Chapter 106) for the Application Area** | |
| Number: 106.263 | Version No./Date: 11/01/2001 |
| Number: 106.454 | Version No./Date: 11/01/2001 |
| Number: 106.472 | Version No./Date: 09/04/2000 |
| Number: 106.511 | Version No./Date: 09/04/2000 |

## New Source Review Authorization References by Emissions Unit

The following is a list of New Source Review (NSR) authorizations for emission units listed elsewhere in this operating permit. The NSR authorizations are applicable requirements under 30 TAC Chapter 122 and enforceable under this operating permit.

| Unit/Group/Process ID No. | Emission Unit Name/Description | New Source Review Authorization |
|---|---|---|
| AUTOPILE | WOOD STORAGE AUTO PILE | 77679, PSDTX1061M1 |
| BFB-1 | BUBBLING FLUIDIZED BOILER | 77679, PSDTX1061M1 |
| BFB-1S | BUBBLING FLUIDIZED BOILER STACK | 77679, PSDTX1061M1 |
| BLASTING | SITEWIDE DRY ABRASIVE BLASTING | 106.263/11/01/2001 |
| C-10/11 | CONVEYOR TO FEED SILOS | 77679, PSDTX1061M1 |
| C-2 | CONVEYOR FROM RECEIVING | 77679, PSDTX1061M1 |
| C-5 | WOOD PROCESSING TO STOCKPILE AREA CONVEYOR | 77679, PSDTX1061M1 |
| C-6 | CONVEYOR TO AUTOPILE | 77679, PSDTX1061M1 |
| C-8 | CONVEYOR FROM AUTOPILE | 77679, PSDTX1061M1 |
| CT-1 | COOLING TOWER | 77679, PSDTX1061M1 |
| CTG-1 | COMBUSTION TURBINE UNIT 1 | 77679, GHGPSDTX116, PSDTX1061M1 |
| CTG1LO-VNT | COMBUSTION TURBINE UNIT 1 LUBE OIL VENT | 77679, PSDTX1061M1 |
| CTG1-STK | COMBUSTION TURBINE UNIT 1 STACK | 77679, GHGPSDTX116, PSDTX1061M1 |
| EMGEN-2 | EMERGENCY GENERATOR ENGINE | 106.511/09/04/2000 |
| FSILO1 | BOILER FEED SILO 1 | 77679, PSDTX1061M1 |
| FSILO2 | BOILER FEED SILO 2 | 77679, PSDTX1061M1 |
| FWPUMP-2 | FIRE WATER PUMP DIESEL ENGINE | 106.511/09/04/2000 |
| HTR1 | FUEL GAS HEATER | 77679, GHGPSDTX116, PSDTX1061M1 |
| LIME-DC | LIME SILO DUST COLLECTOR | 77679, PSDTX1061M1 |

## New Source Review Authorization References by Emissions Unit

The following is a list of New Source Review (NSR) authorizations for emission units listed elsewhere in this operating permit. The NSR authorizations are applicable requirements under 30 TAC Chapter 122 and enforceable under this operating permit.

| Unit/Group/Process ID No. | Emission Unit Name/Description | New Source Review Authorization |
|---|---|---|
| LVSTG-1 | STEAM TURBINE LUBE OIL VENT | 77679, PSDTX1061M1 |
| MANPILE | WOOD STORAGE MANUAL PILE | 77679, PSDTX1061M1 |
| OIL-LOAD | USED OIL LOADING | 106.472/09/04/2000 |
| PAINTING | SITEWIDE MAINTENANCE PAINTING | 106.263/11/01/2001 |
| PARTWSH | PARTS WASHERS | 106.454/11/01/2001 |
| PROPHTR | PROPANE HEATER | 77679, PSDTX1061M1 |
| TK-DSL-1 | FIRE WATER PUMP DIESEL TANK | 77679, PSDTX1061M1 |
| TK-DSL-2 | EMERGENCY ENGINE DIESEL TANK | 77679, PSDTX1061M1 |
| TK-DSL-3 | GENERAL PLANT USE DIESEL FUEL TANK | 77679, PSDTX1061M1 |
| TR-10 | CONVEYOR 9 TO CONVEYOR 10 & 11 TRANSFER | 77679, PSDTX1061M1 |
| TR-11 | UNDERGROUND PILE RECLAIM TO CONVEYOR 14 | 77679, PSDTX1061M1 |
| TR-12 | CONVEYOR 14 TO CONVEYORS 10 & 11 TRANSFERS | 77679, PSDTX1061M1 |
| TR-1 | WOOD CHIPS TO CONVEYORS 1A & 1B | 77679, PSDTX1061M1 |
| TR-2 | CONVEYORS 1A & 1B TO CONVEYOR 2 TRANSFER | 77679, PSDTX1061M1 |
| TR-3 | CONVEYOR 3 TO CONVEYOR 5 TRANSFER | 77679, PSDTX1061M1 |
| TR-4 | CONVEYOR 4 TO CONVEYOR 5 TRANSFER | 77679, PSDTX1061M1 |
| TR-5 | CONVEYOR 5 TO CONVEYOR 6&7 TRANSFER/BYPASS | 77679, PSDTX1061M1 |
| TR-6 | CONVEYOR 6 TO RADIAL STACKER | 77679, PSDTX1061M1 |
| TR-7 | AUTORECLAIMER TO CONVEYOR 8 | 77679, PSDTX1061M1 |

## New Source Review Authorization References by Emissions Unit

The following is a list of New Source Review (NSR) authorizations for emission units listed elsewhere in this operating permit. The NSR authorizations are applicable requirements under 30 TAC Chapter 122 and enforceable under this operating permit.

| Unit/Group/Process ID No. | Emission Unit Name/Description | New Source Review Authorization |
|---|---|---|
| TR-8 | UNDERGROUND PILE RECLAIM TO CONVEYOR 8 | 77679, PSDTX1061M1 |
| TR-9 | CONVEYOR 8 TO CONVEYOR 9 TRANSFER | 77679, PSDTX1061M1 |
| TRK | TRUCK UNLOADER/RECEIVING | 77679, PSDTX1061M1 |
| WDPROC-DC | WOOD PROCESSING BUILDING DUST | 77679, PSDTX1061M1 |
| WDPROC-FUG | WOOD PROCESSING BUILDING FUGITIVES | 77679, PSDTX1061M1 |

## Appendix A

## Acronym List

The following abbreviations or acronyms may be used in this permit:

ACFM ..... actual cubic feet per minute
AMOC ..... alternate means of control
ARP ..... Acid Rain Program
ASTM ..... American Society of Testing and Materials
B/PA ..... Beaumont/Port Arthur (nonattainment area)
CAM ..... Compliance Assurance Monitoring
CD ..... control device
COMS ..... continuous opacity monitoring system
CVS ..... closed-vent system
D/FW ..... Dallas/Fort Worth (nonattainment area)
DR ..... Designated Representative
ElP ..... El Paso (nonattainment area)
EP ..... emission point
EPA ..... U.S. Environmental Protection Agency
EU ..... emission unit
FCAA Amendments ..... Federal Clean Air Act Amendments
FOP ..... federal operating permit
GF ..... grandfathered
gr/100 scf ..... grains per 100 standard cubic feet
HAP ..... hazardous air pollutant
H/G/B ..... Houston/Galveston/Brazoria (nonattainment area)
$H_2S$ ..... hydrogen sulfide
ID No. ..... identification number
lb/hr ..... pound(s) per hour
MMBtu/hr ..... Million British thermal units per hour
MRRT ..... monitoring, recordkeeping, reporting, and testing
NA ..... nonattainment
N/A ..... not applicable
NADB ..... National Allowance Data Base
$NO_x$ ..... nitrogen oxides
NSPS ..... New Source Performance Standard (40 CFR Part 60)
NSR ..... New Source Review
ORIS ..... Office of Regulatory Information Systems
Pb ..... lead
PBR ..... Permit By Rule
PM ..... particulate matter
ppmv ..... parts per million by volume
PSD ..... prevention of significant deterioration
RO ..... Responsible Official
$SO_2$ ..... sulfur dioxide
TCEQ ..... Texas Commission on Environmental Quality
TSP ..... total suspended particulate
TVP ..... true vapor pressure
U.S.C. ..... United States Code
VOC ..... volatile organic compound

## Appendix B

# Major NSR Summary Table

| **Permit Number:** GHGPSDTX116 | | | **Issuance Date: March 1, 2016** | | | | |
|---|---|---|---|---|---|---|---|
| **Emission Point No. (1)** | **Source Name (2)** | **Air Contaminant Name (3)** | **Emission Rates *** | | **Monitoring and Testing Requirements** | **Recordkeeping Requirements** | **Reporting Requirements** |
| | | | **lb/hr** | **TPY (4)** | **Spec. Cond.** | **Spec. Cond.** | **Spec. Cond.** |
| CTG1-STK | Combustion Turbine Unit 1 (Siemens F5) | $CO_2$ (5) | | 318,834 | 3, 6, 7, 8, 9, 10 | 3, 5, 6, 7, 8, 9, 10, 17, 18 | 3, 6 |
| | | $CH_4$ (5) | | 5.9 | 7, 8 | 5, 7, 8, 9, 17, 18 | |
| | | $N_2O$ (5) | | 0.6 | 7, 8 | 5, 7, 8, 9, 17, 18 | |
| | | $CO_2e$ | | 319,160 | 7, 8 | 5, 7, 8, 9, 17, 18 | |
| HTR1 | Fuel Gas Heater | $CO_2$ (5) | | 402 | 11 | 11, 12, 17, 18 | |
| | | $CH_4$ (5) | | 0.01 | 11 | 11, 12, 17, 18 | |
| | | $N_2O$ (5) | | <0.01 | 11 | 11, 12, 17, 18 | |
| | | $CO_2e$ | | 403 | 11 | 11, 12, 17, 18 | |
| VOC-FUG | VOC Fugitives (6) | $CO_2$ (5) | | 0.15 | 14 | 17, 18 | |
| | | $CH_4$ (5) | | 10.15 | 14 | 17, 18 | |
| | | $CO_2e$ | | 254 | 14 | 17, 18 | |
| MSS-FUG | ILE Maintenance Fugitives (6) | $CO_2$ (5) | | <0.01 | | | |
| | | $CH_4$ (5) | | 0.13 | | | |
| | | $CO_2e$ | | 3.4 | | | |
| FUG-SF6 | Circuit Breaker Insulation (6) | $SF_6$ (5) | | <0.01 | 13 | 17, 18 | |
| | | $CO_2e$ | | 9 | | | |

Footnotes:

(1) Emission point identification - either specific equipment designation or emission point number from plot plan.
(2) Specific point source name. For fugitive sources, use area name or fugitive source name.

(3) $CO_2$ - carbon dioxide
$N_2O$ - nitrous oxide
$CH_4$ - methane
$SF_6$ - sulfur hexafluoride
$CO_2e$ - carbon dioxide equivalents based on the following Global Warming Potentials (1/2015):
CO2 (1), $N_2O$ (298), $CH_4$(25), $SF_6$ (22,800)

(4) Compliance with annual emission limits (tons per year) is based on a 12-month rolling period. These rates include emissions from maintenance, startup, and shutdown.

(5) Emission rate is given for informational purposes only and does not constitute enforceable limit.

(6) Fugitive emissions are an estimate only and should not be considered as a maximum allowable emission rate.

Major NSR Summary Table

| **Permit Number:** 77679 and PSDTX1061M1 | | | **Issuance Date: July 20, 2016** | | | | |
|---|---|---|---|---|---|---|---|
| **Emission Point No. (1)** | **Source Name (2)** | **Air Contaminant Name (3)** | **Emission Rates (7)** | | **Monitoring and Testing Requirements** | **Recordkeeping Requirements** | **Reporting Requirements** |
| | | | **lb/hr** | **TPY (5)** | **Spec. Cond.** | **Spec. Cond.** | **Spec. Cond.** |
| BFB-1 | Bubbling Fluidized Bed Boiler (6) 1374 MMBtu/hr | $NO_x$ | 137.0 | 602.0 | 4, 25, 26, 28 | 4, 26, 28, 47, 48, 51 | 4, 26, 28, 51 |
| | | $NO_x$ (MSS) | 250.0 | - | 4, 28 | 4, 12, 28, 34, 48, 51 | 4, 28, 51 |
| | | CO | 227.0 | 903.0 | 5, 25, 26, 28 | 5, 26, 28, 47, 48, 51 | 5, 26, 28, 51 |
| | | CO (MSS) | 454.0 | - | 5, 28 | 5, 12, 28, 34, 48, 51 | 5, 28, 51 |
| | | VOC | 20.0 | 78.0 | 25, 26, 32 | 26, 32, 47, 48 | 26, 32 |
| | | VOC (MSS) | 40.0 | - | | 12, 34, 48 | |
| | | PM | 50.05 | 193.0 | 4, 5, 25, 26, 32 | 4, 5, 26, 32, 34, 47, 48 | 4, 5, 26, 32 |
| | | $PM_{10}$ | 46.12 | 193.0 | 4, 5, 25, 26, 32 | 4, 5, 26, 32, 34, 47, 48 | 4, 5, 26, 32 |
| | | $PM_{2.5}$ | 44.43 | 193.0 | 4, 5 | 4, 5, 34, 48 | 4, 5 |
| | | $SO_2$ | 474.0 | 277.0 | 4, 25, 26, 28 | 4, 26, 28, 34, 47, 48, 51 | 4, 26, 28, 51 |
| | | $H_2SO_4$ | 3.6 | 6.02 | 25, 26, 32 | 26, 32, 47, 48 | 26, 32 |
| | | $H_2SO_4$ (MSS) | 4.3 | - | | 12, 34, 48 | |
| | | $NH_3$ | 18.0 | 55.0 | 25, 26, 30 | 26, 30, 34, 47, 48 | 26, 30 |
| | | $NH_3$ (MSS) | 19.0 | - | 30 | 12, 30, 34, 48 | 30 |
| | | HCl | 97.5 | 120.4 | 5, 25, 26, 32 | 5, 26, 32, 47, 48 | 5, 26, 32 |
| | | Pb | 0.1 | 0.3 | | 48 | |

Major NSR Summary Table

| **Permit Number:** 77679 and PSDTX1061M1 | | | | **Issuance Date: July 20, 2016** | | | |
|---|---|---|---|---|---|---|---|
| **Emission Point No. (1)** | **Source Name (2)** | **Air Contaminant Name (3)** | **Emission Rates (7)** | | **Monitoring and Testing Requirements** | **Recordkeeping Requirements** | **Reporting Requirements** |
| | | | **lb/hr** | **TPY (5)** | **Spec. Cond.** | **Spec. Cond.** | **Spec. Cond.** |
| | | Hg | 0.004 | 0.018 | 5, 25, 26, 32 | 5, 26, 32, 47, 48 | 5, 26, 32 |
| PROPHTR | Propane Heater 5 MMBtu/hr | $NO_x$ | 0.53 | 0.23 | | 48 | |
| | | CO | 0.19 | 0.08 | | 48 | |
| | | VOC | 0.01 | <0.01 | | 48 | |
| | | PM, $PM_{10}$ $PM_{2.5}$ | 0.03 | 0.01 | | 48 | |
| | | $SO_2$ | 0.04 | 0.02 | | 48 | |
| PROP-FUG-1 | Propane Piping Fugitives (4) | VOC | 0.43 | 1.91 | | | |
| $NH_3$-FUG-1 | Aqueous Ammonia Fugitives (4) | $NH_3$ | 0.02 | 0.08 | 16 | 48 | |
| LVSTG-1 | Steam Turbine Lube Oil Vent | VOC | <0.01 | 0.04 | | | |
| CT-1 | Cooling Tower | PM | 0.78 | 3.40 | 27, 33 | 27 | |
| | | $PM_{10}$ | 0.44 | 1.94 | 27, 33 | 27 | |
| | | $PM_{2.5}$ | 0.11 | 0.50 | 27, 33 | 27 | |
| TK-DSL-1 | Firewater Pump Diesel Tank | VOC | 0.01 | <0.01 | 17 | 17 | |
| TK-DSL-2 | Emergency Engine Diesel Tank | VOC | 0.27 | <0.01 | 17 | 17 | |
| TK-DSL-3 | General Plant Use Diesel Fuel Tank | VOC | 0.31 | <0.01 | 17 | 17 | |
| TRK | Truck Unloader/Receiving | PM | 0.32 | <0.01 | | 18 | |
| | | $PM_{10}$ | 0.15 | 0.05 | | | |

Major NSR Summary Table

| **Permit Number:** 77679 and PSDTX1061M1 | | | | **Issuance Date: July 20, 2016** | | | |
|---|---|---|---|---|---|---|---|
| **Emission Point No. (1)** | **Source Name (2)** | **Air Contaminant Name (3)** | **Emission Rates (7)** | | **Monitoring and Testing Requirements** | **Recordkeeping Requirements** | **Reporting Requirements** |
| | | | **lb/hr** | **TPY (5)** | **Spec. Cond.** | **Spec. Cond.** | **Spec. Cond.** |
| | | $PM_{2.5}$ | 0.02 | <0.01 | | | |
| WDPROC-FUG | Wood Processing Building Fugitives (4) | PM | 0.31 | 0.32 | | | |
| | | $PM_{10}$ | 0.13 | 0.14 | | | |
| | | $PM_{2.5}$ | 0.02 | 0.02 | | | |
| WDPROC-DC | Wood Processing Building Dust Collector | PM | 0.06 | 0.06 | | | |
| | | $PM_{10}$ | 0.03 | 0.03 | | | |
| | | $PM_{2.5}$ | <0.01 | <0.01 | | | |
| TR-1 | Wood Chips to Conveyors 1A & 1B | PM | 0.04 | 0.05 | | | |
| | | $PM_{10}$ | 0.014 | 0.016 | | | |
| | | $PM_{2.5}$ | <0.01 | <0.01 | | | |
| TR-2 | Conveyors 1A & 1B to Conveyor 2 Transfer | PM | 0.04 | 0.05 | | | |
| | | $PM_{10}$ | 0.014 | 0.016 | | | |
| | | $PM_{2.5}$ | <0.01 | <0.01 | | | |
| TR-3 | Conveyors 3 to Conveyor 5 Transfer | PM | 0.021 | 0.02 | | | |
| | | $PM_{10}$ | 0.007 | <0.01 | | | |
| | | $PM_{2.5}$ | <0.01 | <0.01 | | | |
| TR-4 | Conveyor 4 to Conveyor 5 Transfer | PM | 0.021 | 0.02 | | | |

Major NSR Summary Table

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|---|---|---|---|---|---|---|---|
| **Emission Point No. (1)** | **Source Name (2)** | **Air Contaminant Name (3)** | **Emission Rates (7)** | | **Monitoring and Testing Requirements** | **Recordkeeping Requirements** | **Reporting Requirements** |
| | | | **lb/hr** | **TPY (5)** | **Spec. Cond.** | **Spec. Cond.** | **Spec. Cond.** |
| | | $PM_{10}$ | <0.01 | <0.01 | | | |
| | | $PM_{2.5}$ | <0.01 | <0.01 | | | |
| TR-5 | Conveyor 5 to Conveyor 6 & 7 Transfer/Bypass | PM | 0.042 | 0.05 | | | |
| | | $PM_{10}$ | 0.014 | 0.016 | | | |
| | | $PM_{2.5}$ | <0.01 | <0.01 | | | |
| TR-6 | Conveyor 6 to Radical Stacker | PM | 0.04 | 0.05 | | | |
| | | $PM_{10}$ | 0.014 | 0.016 | | | |
| | | $PM_{2.5}$ | <0.01 | <0.01 | | | |
| TR-7 | Autoreclaimer to Conveyor 8 | PM | 0.014 | 0.02 | | | |
| | | $PM_{10}$ | <0.01 | <0.01 | | | |
| | | $PM_{2.5}$ | <0.01 | <0.01 | | | |
| TR-8 | Underground Pile Reclaim to Conveyor 8 | PM | 0.014 | 0.02 | | | |
| | | $PM_{10}$ | <0.01 | <0.01 | | | |
| | | $PM_{2.5}$ | <0.01 | <0.01 | | | |
| TR-9 | Conveyor 8 to Conveyor 9 Transfer | PM | 0.014 | 0.05 | | | |
| | | $PM_{10}$ | <0.01 | 0.016 | | | |
| | | $PM_{2.5}$ | <0.01 | <0.01 | | | |

Major NSR Summary Table

| **Permit Number:** 77679 and PSDTX1061M1 | | | | **Issuance Date: July 20, 2016** | | | |
|---|---|---|---|---|---|---|---|
| **Emission Point No. (1)** | **Source Name (2)** | **Air Contaminant Name (3)** | **Emission Rates (7)** | | **Monitoring and Testing Requirements** | **Recordkeeping Requirements** | **Reporting Requirements** |
| | | | **lb/hr** | **TPY (5)** | **Spec. Cond.** | **Spec. Cond.** | **Spec. Cond.** |
| TR-10 | Conveyor 9 to Conveyor 10 & 11 | PM | 0.014 | 0.05 | | | |
| | | $PM_{10}$ | <0.01 | 0.016 | | | |
| | | $PM_{2.5}$ | <0.01 | <0.01 | | | |
| TR-11 | Underground Pile Reclaim to Conveyor 14 | PM | 0.014 | 0.05 | | | |
| | | $PM_{10}$ | <0.01 | 0.016 | | | |
| | | $PM_{2.5}$ | <0.01 | <0.01 | | | |
| C-2 | Conveyor from Receiving | PM | 0.149 | 0.17 | | | |
| | | $PM_{10}$ | 0.05 | 0.06 | | | |
| | | $PM_{2.5}$ | <0.01 | <0.01 | | | |
| C-5 | Wood Processing to Stockpile Area Conveyor | PM | 0.16 | 0.18 | | | |
| | | $PM_{10}$ | 0.05 | 0.06 | | | |
| | | $PM_{2.5}$ | <0.01 | <0.01 | | | |
| C-6 | Conveyor to Autopile | PM | 0.10 | 0.12 | | | |
| | | $PM_{10}$ | 0.033 | 0.039 | | | |
| | | $PM_{2.5}$ | <0.01 | <0.01 | | | |
| C-8 | Conveyor from Autopile | PM | 0.034 | 0.12 | | | |
| | | $PM_{10}$ | 0.01 | 0.04 | | | |
| | | $PM_{2.5}$ | <0.01 | <0.01 | | | |

Major NSR Summary Table

| **Permit Number:** 77679 and PSDTX1061M1 | | | **Issuance Date: July 20, 2016** | | | | |
|---|---|---|---|---|---|---|---|
| **Emission Point No. (1)** | **Source Name (2)** | **Air Contaminant Name (3)** | **Emission Rates (7)** | | **Monitoring and Testing Requirements** | **Recordkeeping Requirements** | **Reporting Requirements** |
| | | | **lb/hr** | **TPY (5)** | **Spec. Cond.** | **Spec. Cond.** | **Spec. Cond.** |
| C-10/11 | Conveyors to Feed Silos | PM | 0.063 | 0.22 | | | |
| | | $PM_{10}$ | 0.02 | 0.07 | | | |
| | | $PM_{2.5}$ | <0.01 | 0.01 | | | |
| FSILO 1 | Boiler Feed Silo 1 | PM | 0.51 | 0.23 | | | |
| | | $PM_{10}$ | 0.51 | 0.23 | | | |
| | | $PM_{2.5}$ | 0.08 | 0.03 | | | |
| FSILO 2 | Boiler Feed Silo 2 | PM | 0.343 | 0.15 | | | |
| | | $PM_{10}$ | 0.343 | 0.15 | | | |
| | | $PM_{2.5}$ | 0.05 | 0.02 | | | |
| LIME-DC | Hydrated Lime Silo Dust Collector | PM | 0.086 | 0.038 | | | |
| | | $PM_{10}$ | 0.086 | 0.038 | | | |
| | | $PM_{2.5}$ | 0.01 | <0.01 | | | |
| FA-DC2 | Fly Ash Silo Loadout Dust Collector | PM | 0.04 | 0.019 | | | |
| | | $PM_{10}$ | 0.04 | 0.019 | | | |
| | | $PM_{2.5}$ | <0.01 | <0.01 | | | |

Major NSR Summary Table

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|---|---|---|---|---|---|---|---|
| **Emission Point No. (1)** | **Source Name (2)** | **Air Contaminant Name (3)** | **Emission Rates (7)** | | **Monitoring and Testing Requirements** | **Recordkeeping Requirements** | **Reporting Requirements** |
| | | | **lb/hr** | **TPY (5)** | **Spec. Cond.** | **Spec. Cond.** | **Spec. Cond.** |
| FA-FUG | Fly Ash Silo Truck Loading Fugitives (4) | PM | 0.31 | 0.04 | | | |
| | | $PM_{10}$ | 0.08 | 0.011 | | | |
| | | $PM_{2.5}$ | 0.01 | <0.01 | | | |
| BA-FUG | Bottom Ash Truck Loading Fugitives (4) | PM | <0.01 | <0.01 | | | |
| | | $PM_{10}$ | <0.01 | 0.01 | | | |
| | | $PM_{2.5}$ | 0.01 | <0.01 | | | |
| AUTOPILE | Wood Storage Auto Pile | PM | 0.38 | 0.50 | | | |
| | | $PM_{10}$ | 0.18 | 0.24 | | | |
| | | $PM_{2.5}$ | 0.03 | 0.04 | | | |
| MANPILE | Wood Storage Manual Pile | PM | 0.65 | 0.86 | | | |
| | | $PM_{10}$ | 0.31 | 0.41 | | | |
| | | $PM_{2.5}$ | 0.05 | 0.06 | | | |

Major NSR Summary Table

| **Permit Number:** 77679 and PSDTX1061M1 | | | | **Issuance Date: July 20, 2016** | | | |
|---|---|---|---|---|---|---|---|
| **Emission Point No. (1)** | **Source Name (2)** | **Air Contaminant Name (3)** | **Emission Rates (7)** | | **Monitoring and Testing Requirements** | **Recordkeeping Requirements** | **Reporting Requirements** |
| | | | **lb/hr** | **TPY (5)** | **Spec. Cond.** | **Spec. Cond.** | **Spec. Cond.** |
| CTG1-STK | Combustion Turbine Unit 1 (Siemens F5) (6) | $NO_x$ | 78.00 | 108.58 | 36, 43, 44, 45 | 36, 39, 43, 44, 45, 49, 50, 51 | 36, 43, 44, 45, 51 |
| | | $NO_x$ (MSS) | 146.80 | - | 44, 45 | 44, 45, 46, 50 | 44, 45 |
| | | CO | 45.93 | 829.21 | 43, 44, 45 | 39, 43, 44, 45, 49, 50, 51 | 43, 44, 45, 51 |
| | | CO (MSS) | 3759.74 | - | 44, 45 | 44, 45, 46, 50 | 44, 45 |
| | | VOC | 5.73 | 95.50 | 43, 45 | 39, 43, 45, 49, 50 | 43, 45 |
| | | VOC (MSS) | 430.88 | - | 45 | 45, 46, 50 | 45 |
| | | PM | 12.09 | 12.94 | 45 | 39, 45, 46, 50 | 45 |
| | | $PM_{10}$ | 12.09 | 12.94 | 43, 45 | 39, 43, 45, 46, 49, 50 | 43, 45 |
| | | $PM_{2.5}$ | 12.09 | 12.94 | 45 | 39, 45, 46, 50 | 45 |
| | | $SO_2$ | 6.29 | 3.14 | 36, 43, 45 | 39, 36, 43, 45, 46, 49, 50 | 36, 43, 45 |
| | | $H_2SO_4$ | 2.89 | 1.44 | 45 | 39, 45, 50 | 45 |
| CTG1LO-VNT | Combustion Turbine Unit 1 Lube Oil Vent | VOC | 0.06 | 0.27 | | | |
| | | PM, $PM_{10}$, $PM_{2.5}$ | 0.06 | 0.27 | | | |
| HTR1 | Fuel Gas Heater | $NO_x$ | 0.27 | 0.34 | | | |
| | | CO | 0.23 | 0.28 | | | |
| | | VOC | 0.01 | 0.02 | | | |
| | | PM, $PM_{10}$, $PM_{2.5}$ | 0.02 | 0.03 | | | |
| | | $SO_2$ | 0.01 | <0.01 | | | |

Major NSR Summary Table

| **Permit Number:** 77679 and PSDTX1061M1 | | | | **Issuance Date: July 20, 2016** | | | |
|---|---|---|---|---|---|---|---|
| **Emission Point No. (1)** | **Source Name (2)** | **Air Contaminant Name (3)** | **Emission Rates (7)** | | **Monitoring and Testing Requirements** | **Recordkeeping Requirements** | **Reporting Requirements** |
| | | | **lb/hr** | **TPY (5)** | **Spec. Cond.** | **Spec. Cond.** | **Spec. Cond.** |
| VOC-FUG | VOC Fugitives (4) | VOC | 0.14 | 0.62 | | | |
| MSS-FUG | ILE Maintenance Fugitives (4) | $NO_x$ | <0.01 | <0.01 | | 46 | |
| | | CO | <0.01 | <0.01 | | 46 | |
| | | VOC | 14.32 | 0.83 | | 46 | |
| | | PM, $PM_{10}$ $PM_{2.5}$ | 0.05 | 0.01 | | 46 | |

Footnotes:

(1) Emission point identification - either specific equipment designation or emission point number from plot plan.
(2) Specific point source name. For fugitive sources, use area name or fugitive source name.
(3) VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1
$NO_x$ - total oxides of nitrogen
$SO_2$ - sulfur dioxide
PM - total particulate matter, suspended in the atmosphere, including $PM_{10}$ and $PM_{2.5}$, as represented
$PM_{10}$ - total particulate matter equal to or less than 10 microns in diameter, including $PM_{2.5}$, as represented
$PM_{2.5}$ - particulate matter equal to or less than 2.5 microns in diameter
CO - carbon monoxide
$H_2SO_4$ - sulfuric acid mist
HCl - hydrogen chloride
$NH_3$ - ammonia
Pb - lead
Hg - mercury
MSS - maintenance, startup, and shutdown
(4) Fugitive emissions are an estimate only and should not be considered as a maximum allowable emission rate.
(5) Compliance with annual emission limits (tons per year) is based on a 12 month rolling period.
(6) Planned maintenance, startup and shutdown (MSS) pound per hour (lb/hr) emissions for all pollutants are authorized even if not specifically identified as MSS. During any clock hour that includes one or more minutes of planned MSS that pollutant's maximum hourly emission rate shall apply during that clock hour.
(7) The lb/hr and ton per year include emissions from maintenance, startup and shutdown unless specified otherwise.

# Texas Commission on Environmental Quality
# Air Quality Permit

*A Permit Is Hereby Issued To*
**Nacogdoches Power, LLC**
*Authorizing the Construction and Operation of*
**Nacogdoches Power Electric Generating Plant**
*Located at* **Cushing, Nacogdoches County, Texas**
Latitude 31° 50′ 4″ Longitude −94° 54′ 16″

Permit: GHGPSDTX116

Issuance Date: March 1, 2016

For the Commission

1. **Facilities** covered by this permit shall be constructed and operated as specified in the application for the permit. All representations regarding construction plans and operation procedures contained in the permit application shall be conditions upon which the permit is issued. Variations from these representations shall be unlawful unless the permit holder first makes application to the Texas Commission on Environmental Quality (commission) Executive Director to amend this permit in that regard and such amendment is approved. [Title 30 Texas Administrative Code (TAC) Section 116.116 (30 TAC § 116.116)] [1]
2. **Voiding of Permit**. A permit or permit amendment is automatically void if the holder fails to begin construction within 18 months of the date of issuance, discontinues construction for more than 18 months prior to completion, or fails to complete construction within a reasonable time. Upon request, the executive director may grant an 18-month extension. Before the extension is granted the permit may be subject to revision based on best available control technology, lowest achievable emission rate, and netting or offsets as applicable. One additional extension of up to 18 months may be granted if the permit holder demonstrates that emissions from the facility will comply with all rules and regulations of the commission, the intent of the Texas Clean Air Act (TCAA), including protection of the public's health and physical property; and (b)(1)the permit holder is a party to litigation not of the permit holder's initiation regarding the issuance of the permit; or (b)(2) the permit holder has spent, or committed to spend, at least 10 percent of the estimated total cost of the project up to a maximum of $5 million. A permit holder granted an extension under subsection (b)(1) of this section may receive one subsequent extension if the permit holder meets the conditions of subsection (b)(2) of this section. [30 TAC § 116.120]
3. **Construction Progress**. Start of construction, construction interruptions exceeding 45 days, and completion of construction shall be reported to the appropriate regional office of the commission not later than 15 working days after occurrence of the event. [30 TAC § 116.115(b)(2)(A)]
4. **Start-up Notification**. The appropriate air program regional office shall be notified prior to the commencement of operations of the facilities authorized by the permit in such a manner that a representative of the commission may be present. The permit holder shall provide a separate notification for the commencement of operations for each unit of phased construction, which may involve a series of units commencing operations at different times. Prior to operation of the facilities authorized by the permit, the permit holder shall identify the source or sources of allowances to be utilized for compliance with Chapter 101, Subchapter H, Division 3 of this title (relating to Mass Emissions Cap and Trade Program). [30 TAC § 116.115(b)(2)(B)]
5. **Sampling Requirements**. If sampling is required, the permit holder shall contact the commission's Office of Compliance and Enforcement prior to sampling to obtain the proper data forms and procedures. All sampling and testing procedures must be approved by the executive director and coordinated with the regional representatives of the commission. The permit holder is also responsible for providing sampling

facilities and conducting the sampling operations or contracting with an independent sampling consultant. [30 TAC § 116.115(b)(2)(C)]

6. **Equivalency of Methods.** The permit holder must demonstrate or otherwise justify the equivalency of emission control methods, sampling or other emission testing methods, and monitoring methods proposed as alternatives to methods indicated in the conditions of the permit. Alternative methods shall be applied for in writing and must be reviewed and approved by the executive director prior to their use in fulfilling any requirements of the permit. [30 TAC § 116.115(b)(2)(D)]
7. **Recordkeeping.** The permit holder shall maintain a copy of the permit along with records containing the information and data sufficient to demonstrate compliance with the permit, including production records and operating hours; keep all required records in a file at the plant site. If, however, the facility normally operates unattended, records shall be maintained at the nearest staffed location within Texas specified in the application; make the records available at the request of personnel from the commission or any air pollution control program having jurisdiction in a timely manner; comply with any additional recordkeeping requirements specified in special conditions in the permit; and retain information in the file for at least two years following the date that the information or data is obtained. [30 TAC § 116.115(b)(2)(E)]
8. **Maximum Allowable Emission Rates**. The total emissions of air contaminants from any of the sources of emissions must not exceed the values stated on the table attached to the permit entitled "Emission Sources--Maximum Allowable Emission Rates." [30 TAC § 116.115(b)(2)(F)] [1]
9. **Maintenance of Emission Control**. The permitted facilities shall not be operated unless all air pollution emission capture and abatement equipment is maintained in good working order and operating properly during normal facility operations. The permit holder shall provide notification in accordance with 30 TAC §101.201, 101.211, and 101.221 of this title (relating to Emissions Event Reporting and Recordkeeping Requirements; Scheduled Maintenance, Startup, and Shutdown Reporting and Recordkeeping Requirements; and Operational Requirements). [30 TAC§ 116.115(b)(2)(G)]
10. **Compliance with Rules**. Acceptance of a permit by an applicant constitutes an acknowledgment and agreement that the permit holder will comply with all rules and orders of the commission issued in conformity with the TCAA and the conditions precedent to the granting of the permit. If more than one state or federal rule or regulation or permit condition is applicable, the most stringent limit or condition shall govern and be the standard by which compliance shall be demonstrated. Acceptance includes consent to the entrance of commission employees and agents into the permitted premises at reasonable times to investigate conditions relating to the emission or concentration of air contaminants, including compliance with the permit. [30 TAC § 116.115(b)(2)(H)]
11. **This** permit may not be transferred, assigned, or conveyed by the holder except as provided by rule. [30 TAC § 116.110(e)]
12. **There** may be additional special conditions attached to a permit upon issuance or modification of the permit. Such conditions in a permit may be more restrictive than the requirements of Title 30 of the Texas Administrative Code. [30 TAC § 116.115(c)]
13. **Emissions** from this facility must not cause or contribute to "air pollution" as defined in Texas Health and Safety Code (THSC) §382.003(3) or violate THSC § 382.085. If the executive director determines that such a condition or violation occurs, the holder shall implement additional abatement measures as necessary to control or prevent the condition or violation.
14. **The** permit holder shall comply with all the requirements of this permit. Emissions that exceed the limits of this permit are not authorized and are violations of this permit. [1]

[1] Please be advised that the requirements of this provision of the general conditions may not be applicable to greenhouse gas emissions.

## Special Conditions

Permit Number GHGPSDTX116

1. This permit authorizes greenhouse gas (GHG) emissions only from those emission points listed in the attached table entitled "Emission Sources - Maximum Allowable Emission Rates" (MAERT), and the facilities covered by this permit are authorized to emit subject to the emission rate limits on that table and other operating conditions specified in this permit. Also, this permit authorizes the GHG emissions from planned maintenance, startup, and shutdown (MSS).

2. Emission limits are based upon representations in the permit application received November 26, 2014.

### Federal Applicability

3. These facilities shall comply with applicable requirements of the EPA regulations on Standards of Performance for New Stationary Sources, Title 40 Code of Federal Regulations Part 60 (40 CFR Part 60):

   A. Subpart A: General Provisions.

   B. Subpart TTTT: Standards of Performance for Greenhouse Gas Emissions for Electric Generating Units, as adopted.

   If any condition of this permit is more stringent than the regulations so incorporated, then for the purposes of complying with this permit, the permit shall govern and be the standard by which compliance shall be demonstrated.

### Simple Cycle - Emissions Standards and Operating Specifications

4. The Combustion Turbine Generator (CTG) Emission Point Number (EPN) CTG1-STK shall not exceed the following limit:

| Turbine Model | Output Specific Carbon Dioxide ($CO_2$) Emission Rate (lb $CO_2$/MWh) |
|---|---|
| Siemens F5 | 1,316, corrected to 95°F, (3-hour avg) |

   Compliance with the above limit shall be demonstrated annually in accordance with the applicable conditions in this permit.

5. The turbine shall not exceed 2,500 hours of operation on rolling 12-month basis.

### Initial Demonstration of Compliance

6. During the first thirty operating days after completion of certification testing of the continuous monitoring systems, or twelve calendar months, whichever comes first, the permit holder shall conduct testing to demonstrate compliance with the applicable limits in this permit. Within 45 days thereafter, the permit holder shall submit a report to the Region identifying whether the data causes any concerns regarding the permit holder's

ability to comply with the Special Conditions or the MAERT, and any actions that have been taken or are planned to be taken to address those concerns.

**Continuous Demonstration of Compliance (CTG)**

7. The permit holder shall monitor and calculate natural gas fuel flow, electricity output, and GHG emissions from the CTG as specified in this permit.

8. Hourly Calculations

   A. Fuel Flow

      (1) The holder of this permit shall install, calibrate, maintain, and operate a continuous fuel flow meter to measure and record the hourly natural gas consumption of the CTG.

      (2) The fuel flow meters must meet the applicable requirements of 40 CFR Part 75, Appendix F and 40 CFR Part 60.

      (3) The fuel flow meters must be accurate to ± 2.0 percent of the unit's maximum flow.

      (4) The fuel flow data must be automatically recorded and maintained on a data acquisition system.

   B. Heat input

      (1) Calculate the heat input in MMBtu, consistent with Equation F-20 and the procedures for determining the HHV (High Heating Value), in 40 CFR Part 75, Appendix F, §5.5.2. In this section, the HHV is referred to as the gross calorific value of gaseous fuel ($GCV_g$).

      (2) The fuel supply shall be sampled and analyzed for HHV monthly.

   C. $CO_2$ Emission Rate

      (1) Calculate the hourly $CO_2$ emission rate in short tons per hour, during all periods of operation, including MSS.

      (2) Calculate the $CO_2$ in accordance with 40 CFR Part 75, Appendix G, Section 2.3, Equation G-4, using:

         (a) the default emission factor of 118.9 lb $CO_2$/MMBtu; or

         (b) a custom emission factor determined in accordance with 40 CFR Part 75, Appendix F, section 3.3.6, Equation 7-b.

   D. Methane ($CH_4$) and nitrous oxide ($N_2O$) emissions

      (1) Calculate the $CH_4$ and $N_2O$ emission rates in short tons per hour during all periods of operation, using the following:

         (a) Measured hourly heat input; and

         (b) Default emission factors of from Table C-2 of 40 CFR Part 98, Subpart C, version effective January 1, 2015.

E. $CO_2e$ Emission Rate

(1) $CO_2e$ emission rate, in short tons per month, equals the sum of the $CO_2$ emissions and the $CO_2e$-converted emissions of $CH_4$ and $N_2O$.

(2) The $CH_4$ and $N_2O$ emission rates are converted to $CO_2e$ emissions using the Global Warming Potentials of 25 for $CH_4$ and 298 for $N_2O$, from Table A-1 of 40 CFR Part 98, Subpart A, version effective January 1, 2015.

9. Annual Efficiency Demonstration and 12-month rolling data

A. Following the initial compliance demonstration, the permit holder shall demonstrate compliance annually with the output-specific $CO_2$ emissions limit in this permit. The emission rate is to be calculated using the following:

(1) Output-specific $CO_2$ emissions are the sum of the hourly $CO_2$ emissions for three consecutive hours divided by the sum of hourly MW production data for the same three hour period.

(2) The annual 3-hour test for the output-specific $CO_2$ emission rate shall be performed while the unit is operating as close to 100 percent load as possible under the ambient conditions, with or without evaporative cooling, corrected to 95°F and based on the gross electrical output (MW).

B. Emissions of $CO_2$, $CH_4$, $N_2O$, and $CO_2e$ in tons per year to show compliance with the limits of the MAERT.

(1) Monthly emissions are the sum of the hourly emissions for that month and include all periods of operation.

(2) At the end of each calendar month, add the monthly emissions to the monthly emissions for the previous 11 months.

10. In lieu of the $CO_2$ calculation requirements of this permit the permit holder may install, calibrate, maintain, and operate a continuous emissions monitoring system (CEMS) for $CO_2$ emission measurements on the turbine. The CEMS shall meet the specifications and test procedures for $CO_2$ emission monitoring system at stationary sources, 40 CFR Part 98; or meet the requirements of 40 CFR Part 60, Appendix B, Performance Specification 3 and follow the monitoring requirements of 40 CFR § 60.13. The permit holder shall also measure volumetric flow and install a data acquisition and handling system to record all measurements.

**Continuous Demonstration of Compliance (Fuel Gas Heater)**

11. The holder of this permit shall install, maintain, and operate a non-resettable hour meter to measure and record the hours of operation of the fuel gas heater.

A. The operational data must be automatically recorded with a data acquisition and handling system.

12. Fuel gas heater emission calculations.

A. Calculate monthly and 12-month rolling GHG emissions from the fuel gas heater, for all periods of operation, using the hours of operation and rated capacity of the unit to calculate heat input in combination with the equations (converting metric tons to short tons) in 40 CFR Part 98 as follows:

B. Calculate the $CO_2$ emission rates in short tons per hour during all periods of operation, using the following:

(1) Calculated heat input; and

(2) Default emission factors of from Table C-1 of 40 CFR Part 98, Subpart C, version effective January 1, 2015.

C. Calculate the $CH_4$ and $N_2O$ emission rates in short tons per hour during all periods of operation, using the following:

(1) Calculated heat input; and

(2) Default emission factors of from Table C-2 of 40 CFR Part 98, Subpart C, version effective January 1, 2015.

**Continuous Demonstration of Compliance (Circuit Breakers)**

13. The sulfur hexafluoride ($SF_6$)-enclosed circuit breakers used to prevent damage in the event of a power surge must be designed to meet the 2015 IEEE/IEC 62271-37-013 standard for high-voltage circuit breakers. The circuit breakers must be guaranteed to achieve a $SF_6$ leak rate of 0.5% by weight or less annually. The circuit breakers must be in a totally enclosed, pressurized compartment equipped with an alarm that signals the plant control room in the event that the density in any circuit breaker falls below the normal operating density as specified by the manufacturer.

The permit holder shall equip the circuit breakers with a low density alarm and lockout. As soon as practicable following the detection of a leak, plant personnel shall take one or more of the following actions:

A. Locate and isolate the leak using a $SF_6$ leak collections or containment system to control the leak until repair or replacement can be made if immediate repair is not possible.

B. Commence repair or replacement of the leaking component.

**Continuous Demonstration of Compliance (Natural Gas Fugitives)**

14. The permit holder shall minimize emissions from pressurized components and equipment containing GHG as follows:

A. Piping and valves in natural gas service within the operating area must be checked monthly for leaks using audio, visual, and olfactory (AVO) sensing for natural gas leaks. If the site is not manned for a given month, an AVO check shall be performed within one week after plant personnel return to the site for the purpose of operating the facilities authorized by this permit.

B. As soon as practicable following the detection of a leak, plant personnel shall take one or more of the following actions:

(1) Locate and isolate the leak, if necessary.

(2) Commence repair or replacement of the leaking component.

**Maintenance, Startup, and Shutdown**

15. The permit holder shall minimize the duration of uncontrolled venting of natural gas during MSS according to good engineering practices.

**Recordkeeping Requirements**

16. Permit holders must keep records sufficient to demonstrate compliance with 30 Texas Administrative Code § 116.164. Records shall be sufficient to demonstrate the amount of emissions of GHGs from the source as a result of construction, a physical change or a change in method of operation does not require authorization under 30 TAC §116.164(a).

17. The following records shall be kept at the plant for the life of the permit. All records required in this permit shall be made available at the request of personnel from the TCEQ, EPA, or any air pollution control agency with jurisdiction:

A. A copy of this permit.

B. Permit application dated November 21, 2014, and subsequent representations submitted to the TCEQ.

18. The following information shall be maintained by the holder of this permit in a form suitable for inspection for a period of five years after collection and shall be made available upon request to representatives of the TCEQ, EPA, or any local air pollution control program having jurisdiction:

A. For the combustion turbine EPN CTG1-STK, records of the following:

(1) Fuel usage in MMBtu, kept hourly, monthly, and 12-month rolling basis.

(2) Hours of operation.

(3) Averages of $CH_4$, $N_2O$, $CO_2$, and $CO_2e$ emissions, kept hourly, monthly, and on a 12-month rolling average.

(4) Records of monthly sampling of natural gas HHV determinations.

(5) Records of hours of operation of to demonstrate compliance with this permit.

(6) Records of the annual efficiency demonstration detailed in in this permit.

B. For the fuel gas heater, records of the following:

(1) Hours of operation.

(2) Calculated fuel usage in MMBtu kept monthly and 12-month rolling basis.

(3) $CH_4$, $N_2O$, $CO_2$ and $CO_2e$ emission rates.

(4) Records of inspections, cleaning, calibration, maintenance, replacement and repair.

C. Records of triggered alarms and maintenance or leak repair performed on $SF_6$ containing circuit breakers.

D. Records of AVO checks on the natural gas fuel and maintenance performed to any piping and valves in natural gas service to show compliance with this permit.

E. Records of calibrations, preventative maintenance, and/or repairs performed on natural gas flow meters.

Date: March 1, 2016

Emission Sources - Maximum Allowable Emission Rates

Permit Number GHGPSDTX116

This table lists the maximum allowable emission rates of greenhouse gas (GHG) emissions, as defined in Title 30 Texas Administrative Code § 101.1, for all sources of GHG air contaminants on the applicant's property that are authorized by this permit. The emission rates shown are those derived from information submitted as part of the application for permit and are the maximum rates allowed for these facilities, sources, and related activities. Any proposed increase in emission rates may require an application for a modification of the facilities authorized by this permit.

Air Contaminants Data

| Emission Point No. (1) | Source Name (2) | Air Contaminant Name (3) | Emission Rates |
|---|---|---|---|
| | | | TPY (4) |
| CTG1-STK | Combustion Turbine Unit 1 (Siemens F5) | $CO_2$ (5) | 318,834 |
| | | $CH_4$ (5) | 5.9 |
| | | $N_2O$ (5) | 0.6 |
| | | $CO_2e$ | 319,160 |
| HTR1 | Fuel Gas Heater | $CO_2$ (5) | 402 |
| | | $CH_4$ (5) | 0.01 |
| | | $N_2O$ (5) | <0.01 |
| | | $CO_2e$ | 403 |
| VOC-FUG | VOC Fugitives (6) | $CO_2$ (5) | 0.15 |
| | | $CH_4$ (5) | 10.15 |
| | | $CO_2e$ | 254 |
| MSS-FUG | ILE Maintenance Fugitives (6) | $CO_2$ (5) | <0.01 |
| | | $CH_4$ (5) | 0.13 |
| | | $CO_2e$ | 3.4 |
| FUG-SF6 | Circuit Breaker Insulation (6) | $SF_6$ (5) | <0.01 |
| | | $CO_2e$ | 9 |

(1) Emission point identification - either specific equipment designation or emission point number from plot plan.
(2) Specific point source name. For fugitive sources, use area name or fugitive source name.

Emission Sources - Maximum Allowable Emission Rates

(3) $CO_2$ - carbon dioxide
$N_2O$ - nitrous oxide
$CH_4$ - methane
$SF_6$ - sulfur hexafluoride
$CO_2e$ - carbon dioxide equivalents based on the following Global Warming Potentials (1/2015): CO2 (1), $N_2O$ (298), $CH_4$(25), $SF_6$ (22,800)

(4) Compliance with annual emission limits (tons per year) is based on a 12-month rolling period. These rates include emissions from maintenance, startup, and shutdown.

(5) Emission rate is given for informational purposes only and does not constitute enforceable limit.

(6) Fugitive emissions are an estimate only and should not be considered as a maximum allowable emission rate.

Date: March 1, 2016

# Texas Commission on Environmental Quality
# Air Quality Permit

*A Permit Is Hereby Issued To*
**Nacogdoches Power, LLC**
*Authorizing the Construction and Operation of*
**Nacogdoches Power Electric Generating Plant**
*Located at* **Cushing, Nacogdoches County, Texas**
Latitude 31° 50′ 4″ Longitude −94° 54′ 16″

Permits: 77679 and PSDTX1061M1
Revision Date: July 20, 2016
Expiration Date: March 1, 2017

For the Commission

1. **Facilities** covered by this permit shall be constructed and operated as specified in the application for the permit. All representations regarding construction plans and operation procedures contained in the permit application shall be conditions upon which the permit is issued. Variations from these representations shall be unlawful unless the permit holder first makes application to the Texas Commission on Environmental Quality (commission) Executive Director to amend this permit in that regard and such amendment is approved. [Title 30 Texas Administrative Code (TAC) Section 116.116 (30 TAC § 116.116)] [1]
2. **Voiding of Permit**. A permit or permit amendment is automatically void if the holder fails to begin construction within 18 months of the date of issuance, discontinues construction for more than 18 months prior to completion, or fails to complete construction within a reasonable time. Upon request, the executive director may grant an 18-month extension. Before the extension is granted the permit may be subject to revision based on best available control technology, lowest achievable emission rate, and netting or offsets as applicable. One additional extension of up to 18 months may be granted if the permit holder demonstrates that emissions from the facility will comply with all rules and regulations of the commission, the intent of the Texas Clean Air Act (TCAA), including protection of the public's health and physical property; and (b)(1)the permit holder is a party to litigation not of the permit holder's initiation regarding the issuance of the permit; or (b)(2) the permit holder has spent, or committed to spend, at least 10 percent of the estimated total cost of the project up to a maximum of $5 million. A permit holder granted an extension under subsection (b)(1) of this section may receive one subsequent extension if the permit holder meets the conditions of subsection (b)(2) of this section. [30 TAC § 116.120]
3. **Construction Progress**. Start of construction, construction interruptions exceeding 45 days, and completion of construction shall be reported to the appropriate regional office of the commission not later than 15 working days after occurrence of the event. [30 TAC § 116.115(b)(2)(A)]
4. **Start-up Notification**. The appropriate air program regional office shall be notified prior to the commencement of operations of the facilities authorized by the permit in such a manner that a representative of the commission may be present. The permit holder shall provide a separate notification for the commencement of operations for each unit of phased construction, which may involve a series of units commencing operations at different times. Prior to operation of the facilities authorized by the permit, the permit holder shall identify the source or sources of allowances to be utilized for compliance with Chapter 101, Subchapter H, Division 3 of this title (relating to Mass Emissions Cap and Trade Program). [30 TAC § 116.115(b)(2)(B)]
5. **Sampling Requirements**. If sampling is required, the permit holder shall contact the commission's Office of Compliance and Enforcement prior to sampling to obtain the proper data forms and procedures. All sampling and testing procedures must be approved by the executive director and coordinated with the regional representatives of the commission. The permit holder is also responsible for providing sampling

facilities and conducting the sampling operations or contracting with an independent sampling consultant. [30 TAC § 116.115(b)(2)(C)]

6. **Equivalency of Methods.** The permit holder must demonstrate or otherwise justify the equivalency of emission control methods, sampling or other emission testing methods, and monitoring methods proposed as alternatives to methods indicated in the conditions of the permit. Alternative methods shall be applied for in writing and must be reviewed and approved by the executive director prior to their use in fulfilling any requirements of the permit. [30 TAC § 116.115(b)(2)(D)]
7. **Recordkeeping.** The permit holder shall maintain a copy of the permit along with records containing the information and data sufficient to demonstrate compliance with the permit, including production records and operating hours; keep all required records in a file at the plant site. If, however, the facility normally operates unattended, records shall be maintained at the nearest staffed location within Texas specified in the application; make the records available at the request of personnel from the commission or any air pollution control program having jurisdiction in a timely manner; comply with any additional recordkeeping requirements specified in special conditions in the permit; and retain information in the file for at least two years following the date that the information or data is obtained. [30 TAC § 116.115(b)(2)(E)]
8. **Maximum Allowable Emission Rates**. The total emissions of air contaminants from any of the sources of emissions must not exceed the values stated on the table attached to the permit entitled "Emission Sources--Maximum Allowable Emission Rates." [30 TAC § 116.115(b)(2)(F)] [1]
9. **Maintenance of Emission Control**. The permitted facilities shall not be operated unless all air pollution emission capture and abatement equipment is maintained in good working order and operating properly during normal facility operations. The permit holder shall provide notification in accordance with 30 TAC §101.201, 101.211, and 101.221 of this title (relating to Emissions Event Reporting and Recordkeeping Requirements; Scheduled Maintenance, Startup, and Shutdown Reporting and Recordkeeping Requirements; and Operational Requirements). [30 TAC§ 116.115(b)(2)(G)]
10. **Compliance with Rules**. Acceptance of a permit by an applicant constitutes an acknowledgment and agreement that the permit holder will comply with all rules and orders of the commission issued in conformity with the TCAA and the conditions precedent to the granting of the permit. If more than one state or federal rule or regulation or permit condition is applicable, the most stringent limit or condition shall govern and be the standard by which compliance shall be demonstrated. Acceptance includes consent to the entrance of commission employees and agents into the permitted premises at reasonable times to investigate conditions relating to the emission or concentration of air contaminants, including compliance with the permit. [30 TAC § 116.115(b)(2)(H)]
11. **This** permit may not be transferred, assigned, or conveyed by the holder except as provided by rule. [30 TAC § 116.110(e)]
12. **There** may be additional special conditions attached to a permit upon issuance or modification of the permit. Such conditions in a permit may be more restrictive than the requirements of Title 30 of the Texas Administrative Code. [30 TAC § 116.115(c)]
13. **Emissions** from this facility must not cause or contribute to "air pollution" as defined in Texas Health and Safety Code (THSC) §382.003(3) or violate THSC § 382.085. If the executive director determines that such a condition or violation occurs, the holder shall implement additional abatement measures as necessary to control or prevent the condition or violation.
14. **The** permit holder shall comply with all the requirements of this permit. Emissions that exceed the limits of this permit are not authorized and are violations of this permit. [1]

[1] Please be advised that the requirements of this provision of the general conditions may not be applicable to greenhouse gas emissions.

## Special Conditions

Permit Numbers 77679 and PSDTX1061M1

1. This permit covers only those sources of emissions listed in the attached table entitled "Emission Sources - Maximum Allowable Emission Rates," and those sources are limited to the emission limits and other conditions specified in that attached table. Compliance with the annual emission limits shall be based on throughput for a rolling 12 month year rather than the calendar year. This permit authorizes startup and shutdown activities which comply with the emission limits in the maximum allowable emission rates table (MAERT) and the opacity limits in Special Condition No. 9, 24 and 40. **(10/15)**

### Bubbling Fluidized Bed Boiler (BFB)

### Permit Representations

2. Emission limits are based upon representations in the permit application dated December 22, 2005, subsequent submittals, and the case-by-case maximum allowable control technology (MACT) analysis submitted December 23, 2008. **(07/09)**

3. The following sources are authorized by Permit by Rule (PBR) under Title 30 Texas Administrative Code Chapter 106 (30 TAC Chapter 106): **(07/12)**

| Activity/Facility | PBR |
|---|---|
| Portable and Emergency Engines and Turbine | 106.511 |

### Federal Applicability

4. These facilities shall comply with all applicable requirements of the U.S. Environmental Protection Agency (EPA) regulations on Standards of Performance for New Stationary Sources (NSPS) Title 40 Code of Federal Regulations Part 60 (40 CFR Part 60) promulgated for:

   A. Subpart A: General Conditions.

   B. Subpart Db: Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units. [Boiler Emission Point Number (EPN): BFB-1]

5. These facilities shall comply with all applicable requirements of EPA regulations on National Emission Standards for Hazardous Air Pollutants for Source (NESHAP) Categories in 40 CFR Part 63, promulgated for:

   A. Subpart A: General Provisions.

   B. Subpart DDDDD: National Emission Standards for Industrial, Commercial, and institutional Boilers and Process Heaters **(10/15)**

   If any condition of this permit is more stringent than the regulations identified in Special Conditions No. 4 and 5, then for the purposes of complying with this permit, the permit shall govern and be the standard by which compliance shall be demonstrated.

**Fuel Specifications, Operating Limitations, Performance Standards, and Construction Specifications**

6. Fuel fired in the BFB Boiler (EPN: BFB-1) will consist of biomass fuel as defined in the permit application dated December 22, 2005, and in subsequent submittals. Propane will be used for start-up. Use of any other fuel will require prior approval from the permitting authority.

   Upon request by the Executive Director of the Texas Commission on Environmental Quality (TCEQ) or any air pollution control program having jurisdiction, the holder of this permit shall provide a sample and/or an analysis of the fuel fired in the BFB Boiler or shall allow air pollution control agency representatives to obtain a sample for analysis. **(12/10)**

7. The BFB Boiler (EPN: BFB-1) shall be limited to a maximum heat input of 1374 million British thermal units per hour (MMBtu/hr), averaged over a calendar month, based on the higher heating value (HHV) of the fuel fired.

8. A heater (EPN: PROPHTR) will be used to vaporize the propane fuel supplied to the BFB boiler (EPN: BFB-1) during startup and miscellaneous maintenance activities. This vaporizer will be fired on propane fuel and will be rated at 5 MMBtu/hr. Use of the heater shall be limited to 884 hours per year (hr/yr) after commissioning of the unit is complete. **(12/13)**

9. Opacity of emissions from the BFB Boiler (EPN: BFB-1) must not exceed 10 percent, averaged over a six-minute period, except for those periods described in 30 TAC § 111.111(a) (1)(E), 40 CFR § 60.11(c), or as otherwise allowed by law. Periods of opacity greater than 20% for planned offline maintenance (Attachment A) are authorized for a maximum of 72 hr/yr. **(12/13)**

10. Emissions from the BFB Boiler (EPN: BFB-1) shall not exceed the following except during periods of maintenance, start-up, and shutdown (MSS): **(07/09)**

    A. Standards demonstrated by Continuous Emissions Monitoring Systems (CEMS) **(12/10)**

| Pollutant | Performance Standard | Units | Averaging Period |
|---|---|---|---|
| $NO_x$ | 0.10 | lb/MMBtu | 30-day rolling average |
| | | | 12-mo rolling average |
| CO | 0.15 | lb/MMBtu | 30-day rolling average |
| | | | 12-mo rolling average |
| $SO_2$ | 0.046 | lb/MMBtu | 30-day rolling average |
| | | | 12-mo rolling average |
| $NH_3$ | 15 | ppmvd corrected to 7% $O_2$ | 30-day rolling average |
| | 14 | | 12-mo rolling average |

B. Standards demonstrated by EPA Reference Method (RM) testing **(10/09)**

| Pollutant | Performance Standard | Units | Compliance Demonstration Period |
|---|---|---|---|
| VOC | 0.013 | lb/MMBtu | 30-day |
| $PM/PM_{10}$ (front-half catch) | 0.015 | lb/MMBtu | 30-day |
| $PM/PM_{10}/PM_{2.5}$ (total) | 0.032 | lb/MMBtu | 30-day |
| $H_2SO_4$ | 0.001 | lb/MMBtu | annual |
| HCl | 0.02 | lb/MMBtu | 30-day |
| Hg | 3.0 | lb/TBtu | annual |

C. The higher heating value of the fuel shall be used to calculate the pounds of emissions per MMBtu (lb/MMBtu) and the pounds of emission per trillion British thermal units (lb/TBtu).

D. EPA RMs, based on the average of three stack sampling runs to be conducted as prescribed by Special Conditions No. 25 and 32.

E. Total particulate matter $(PM)/PM_{10}/PM_{2.5}$ including back-half (condensibles) catch of sampling train.

11. In the event that the CEMS for nitrogen oxide ($NO_x$) is not operating for a period longer than one hour while the BFB boiler is operating, the permit holder shall operate at no less than the ammonia feed rate to the Selective Non-Catalytic Reduction (SNCR) that was measured prior to the loss of the CEMS, adjusted for load or other operating parameters.

12. The holder of this permit shall operate the BFB Boiler (EPN: BFB-1) and associated air pollution control equipment in accordance with good air pollution control practices to minimize emissions during MSS, by operating in accordance with a written MSS plan which complies with 30 TAC § 101.211. The plan shall include detailed procedures for review of relevant operating parameters of the BFB Boiler and associated air pollution control equipment during MSS to make adjustments and corrections to reduce or eliminate any excess emissions. The plan shall also address readily foreseeable start-up scenarios, including hot start-ups, when the operation of the boiler is only temporarily interrupted, and provide for appropriate review of the operational condition of the boiler before initiating start-up. In addition, the plan shall address procedures for minimizing opacity and PM emissions while conducting on-line maintenance of the BFB boiler baghouses.

13. The BFB Boiler Stack (EPN: BFB-1) will be approximately 240 feet tall with an exit diameter of 12 feet. Stack sampling ports and platform(s) shall be constructed on the stack as specified in the attachment entitled "Chapter 2, Stack Sampling Facilities," or an alternate design may be required at a later date if determined necessary by the appropriate

TCEQ Regional Director. Adequate advance notice shall be provided by TCEQ if an alternate design is required. **(07/09)**

14. Chromium-based solutions shall not be used in the Cooling Tower (EPN: CT-1). **(12/10)**

**Chemical Storage**

15. Aqueous ammonia storage tanks shall be located within a physical barrier to traffic. Tank containment shall be employed with a minimum of 110 percent of tank volume. Vapors resulting from the filling operations of the aqueous ammonia storage tank(s) shall be collected and vapor returned back to the transport vessel.

    The relief valve system shall be designed and operated to ensure that there are no working loss emissions to the atmosphere resulting from filling operations, and that there are no breathing losses during normal non-filling (standing) operations. The fill level of the aqueous ammonia storage tank shall not exceed a level that is in line with good engineering practices, and shall include a high level alarm and a high-high level alarm. In addition, sealless pumps shall be used in all piping handling aqueous ammonia.

16. Audio, olfactory, and visual checks for ammonia leaks shall be made once per day within the operating area.

    A. No later than one hour following detection of a leak, plant personnel shall take the following actions:

        (1) Locate and isolate the leak; and

        (2) Use a leak collection or containment system to control the leak until repair or replacement can be made.

    B. Within 24 hours of detection of a leak, plant personnel shall commence repair or replacement of the leaking component as appropriate.

17. The uninsulated exterior surfaces of any storage tanks at the site must be white or aluminum. In addition, all storage tanks must be equipped with permanent submerged fill pipes. **(7/16)**

    A. The permit holder shall keep a record of tank construction specifications (e.g. engineering drawings) that shows a fill pipe that extends from the top of the tank to have a maximum clearance of six inches from the bottom or, when the tank is loaded from the side, a discharge opening entirely submerged when the pipe used to withdraw liquid from the tank can no longer withdraw liquid in normal operation.

    B. The permit holder shall inspect to determine the structural integrity of the fill pipe and record each time the storage vessel is emptied and degassed to ensure that it continues to meet the specifications in the above requirement. If the structural integrity of the fill pipe is in question, repairs shall be made before the storage vessel

is refilled. It shall be considered and reported as a deviation if the repairs are not completed prior to refilling the storage vessel.

**Material Handling Operating Limitations and Standards**

18. Total biomass fuel unloaded at the facilities authorized by this permit shall not exceed 1,200 tons per hour or 14,400 tons per rolling 24 hour period and shall be delivered at the drive through unloading building as described in the application dated May 20, 2010. **(12/10)**

19. Plant roads shall be paved with a cohesive hard surface which can be cleaned by sweeping or washing; or sprinkled with water and/or surface crusting agents as necessary to maintain compliance with all TCEQ rules and regulations.

20. Material storage area footprints shall be limited as follows: **(12/10)**

| EPN | Source | Area |
|---|---|---|
| AUTOPILE | Wood Storage Auto Pile | 3.15 acres |
| MANPILE | Wood Storage Manual Pile | 4.4 acres |

21. All conveyors shall be covered or enclosed, as represented in the application, to minimize fugitive PM emissions. If visibility problems occur, additional controls may be required. Coverings and enclosures are considered abatement equipment, and shall be kept in good repair.

22. Fugitive emissions from the transfer points on belt conveyors, any material handling, and the stockpile activities shall not create an off-property nuisance condition. Title 40 CFR Part 60, Appendix A, RM 22, or equivalent, shall be used to determine compliance with this special condition. Observations shall be performed and recorded quarterly. If this condition is violated, additional controls or process changes may be required to limit visible PM emissions. **(12/10)**

23. Material handling baghouses, designed to meet an emission limit of 0.01 grain PM per dry standard cubic foot of exhaust, properly installed and in good working order, shall control PM emissions from the following sources: **(7/12)**

| EPN | Source |
|---|---|
| FSILO-1 | Boiler Feed Silo 1 |
| FSILO-2 | Boiler Feed Silo 2 |
| LIME-DC | Hydrated Lime Silo Dust Collector |
| FA-DC2 | Fly Ash Silo Loadout Dust Collector |

24. Opacity of emissions from any single fabric filter baghouse stack listed in Special Condition No. 23 shall not exceed 5 percent averaged over a six-minute period. Determination of compliance with this requirement shall be made by first observing for visible emissions during normal plant operations. Observations shall be made at least 15

feet and no more than 0.25 mile from the emission point. If visible emissions are observed from the emission point, opacity shall be determined using 40 CFR Part 60, Appendix A, Test Method 9. Contributions from uncombined water vapor shall not be included in determining compliance with this condition. Determination of compliance with this requirement shall be performed and the results recorded quarterly. **(12/10)**

**Initial Demonstration of Compliance**

25. The holder of this permit shall perform initial stack sampling and other testing to establish the actual quantities of air contaminants being emitted into the atmosphere. Unless otherwise specified in this special condition, the sampling and testing shall be conducted in accordance with the methods and procedures specified in Special Condition No. 26. The holder of this permit is responsible for providing sampling and testing facilities and conducting the sampling and testing operations at his expense. The TCEQ Executive Director or his designated representative shall be afforded the opportunity to observe all such sampling.

    A. Demonstrate compliance with the performance standards of Special Condition No. 10 and the hourly emission rates of the MAERT, applicable to normal operations, using the average of three one-hour stack sampling test runs for each contaminant.

    B. Air contaminants to be sampled and analyzed under (1) above include: $NO_x$, carbon monoxide (CO), sulfur dioxide ($SO_2$), volatile organic compounds (VOC), PM, $PM_{10}$, sulfuric acid ($H_2SO_4$), ammonia ($NH_3$), mercury (Hg), and hydrochloric acid (HCl). Diluents to be measured include oxygen ($O_2$) or carbon dioxide ($CO_2$).

    C. Demonstrate compliance with the opacity performance standards of Special Condition No. 9 applicable to normal operations, using the average of 30 six minute readings as provided in 40 CFR § 60.11(b).

    D. Demonstrate compliance with 40 CFR Part 60, Subparts A and Db, for $NO_x$, $SO_2$, PM, and opacity.

    E. Boiler load during testing shall be maintained as follows.

        (1) Operate at maximum firing rates for the atmospheric conditions occurring during the test as measured by millions of pounds of steam generated per hour or MW of electric generator output. If the steam generating unit is unable to operate at maximum rates during testing, then additional stack testing may be required when higher production rates are achieved.

        (2) During 30-day average emission testing, the boiler load does not have to be maximum, but the load must be representative of future operating conditions and must include at least one 24-hour period at full load.

    F. Initial compliance testing was completed on 6/20/2012

**Test Methods and Procedures**

26. Sampling shall be conducted in accordance with the appropriate procedures of the TCEQ Sampling Procedures Manual, EPA Methods in 40 CFR Part 60, Appendix A and 40 CFR Part 51, Appendix M, EPA Conditional Test Methods, and American Society for Testing and Materials (ASTM).

    A. The following, or equivalent, test methods shall be used:

        (1) Appendix A, Methods 1 through 4, as appropriate, for exhaust flow, diluent, and moisture concentration;

        (2) Appendix A, Methods 5 or 17, modified to include back-half condensibles, for the concentration of PM;

        (3) Appendix A, Methods 5 or 17, for the filterable concentration of PM (front half catch);

        (4) Appendix A, Methods 6, 6a, 6c, or 8, for the concentration of $SO_2$;

        (5) Appendix A, Method 7E for the concentrations of $NO_x$ and $O_2$, or equivalent methods;

        (6) Appendix A, Method 8, modified Method 8 or the controlled condensate method for $H_2SO_4$;

        (7) Appendix A, Method 9 for opacity;

        (8) Appendix A, Method 10 for the concentration of CO;

        (9) Appendix A, Method 19, for applicable calculation methods;

        (10) Appendix A, Method 22, for visible emissions;

        (11) Appendix A, Method 25A, modified to exclude methane and ethane, for the concentration of VOC (to measure total carbon as propane);

        (12) Appendix A, Method 26 or 26A for HCl;

        (13) EPA Conditional Test Method 27 (CTM-027), for $NH_3$;

        (14) Appendix M, Methods 201A and 202, or Appendix A, Reference 5 Method 5, modified to include back-half condensibles, for the concentration of particulate matter less than 10 microns in diameter, $PM_{10}$; and

        (15) Appendix M, Methods 201A or Appendix A, Reference Method 5, for the filterable concentration of particulate matter less than 10, $PM_{10}$ (front-half catch);

    Requests to waive testing for any pollutant specified in this condition shall be submitted to the TCEQ Office of Air, Air Permits Division. Test waivers and alternate or equivalent procedure proposals for New Source Performance Standards testing which must have EPA approval shall be submitted to the TCEQ Beaumont Regional Director.

B. The TCEQ Beaumont Regional Office shall be given notice as soon as testing is scheduled but not less than 30 days prior to sampling to schedule a pretest meeting.

(1) The notice shall include:

(a) Date for pretest meeting;

(b) Date sampling will occur;

(c) Name of firm conducting sampling;

(d) Type of sampling equipment to be used;

(e) Method or procedure to be used in sampling;

(f) Projected date of commencement of the 30-day rolling average initial performance tests for $SO_2$ and $NO_x$; and

(g) Fuel to be fired during the test.

(2) The purpose of the pretest meeting is to review the necessary sampling and testing procedures, to provide the proper data forms for recording pertinent data, and to review the format procedures for submitting the test reports.

The permit holder shall present at the pretest meeting the manner in which stack sampling will be conducted in order to demonstrate compliance with emission standards found in this permit and 40 CFR Part 60, Subpart Db. **(12/10)**

(3) Prior to the pretest meeting, a written proposed description of any deviation from sampling procedures specified in permit conditions or TCEQ, EPA, or ASTM sampling procedures shall be made available to the TCEQ. The TCEQ Beaumont Regional Director shall approve or disapprove of any deviation from specified sampling procedures.

C. Information in the test report shall include the following data for each test run:

(1) hourly biomass fuel firing rate (in tons);

(2) average biomass fuel Btu/lb as-received and dry weight;

(3) average steam generation rate in millions of pounds per hour;

(4) average generator output in MW;

(5) control device operating rates, including SNCR for EPN BFB-1 reagent injection rate; **(12/10)**

(6) emissions in the units of the limits of this permit, lb/hr and lb/MMBtu, three hour or 30-day average, as appropriate; and

(7) any additional records deemed necessary during the stack sampling pre-test meeting.

D. Two copies of the final sampling report shall be forwarded to the TCEQ within 60 days after sampling is completed. Sampling reports shall comply with the attached

conditions of Chapter 14 of the TCEQ Sampling Procedures Manual. The reports shall be distributed as follows:

(1) One copy to the TCEQ Beaumont Regional Office.

(2) One copy to the EPA Region 6 Office, Dallas.

27. For the Cooling Tower (EPN: CT-1), demonstrate compliance with the emission rates of the MAERT by records that demonstrate that the drift eliminators are designed to limit drift as specified in the application, and by inspection of modules when the unit is down for scheduled outage, selected by the TCEQ Regional Director or his designated representative, for: consistency with the specified design; flow bypassing the drift eliminators; and damage to the eliminators. **(12/10)**

**Continuous Demonstration of Compliance**

28. The holder of this permit shall install, calibrate, maintain, and operate a CEMS to measure and record the concentrations of $NO_x$, CO, and $SO_2$ from EPN: BFB-1. Diluents to be measured include $O_2$ or $CO_2$. The CEMS data shall be used to determine continuous compliance with the $NO_x$, CO, and $SO_2$ emission limitations in Special Condition No. 10 and the attached MAERT. **(12/10)**

A. The CEMS shall meet the design and performance specifications, pass the field tests, and meet the installation requirements and the data analysis and reporting requirements specified in the applicable Performance Specification Nos. 1 through 9, 40 CFR Part 60, Appendix B or an acceptable alternative. If there are no applicable performance specifications in 40 CFR Part 60, Appendix B, contact the TCEQ Office of Air, Air Permits Division in Austin for requirements to be met.

B. The holder of this permit shall assure that the CEMS meets the applicable quality assurance requirements specified in 40 CFR Part 60, Appendix F, Procedure 1, or an acceptable alternative. Relative accuracy exceedances, as specified in 40 CFR Part 60, Appendix F, § 5.2.3 and any CEMS downtime and all cylinder gas audit exceedances of ± 15 percent accuracy shall be reported semiannually to the appropriate TCEQ Regional Director, and necessary corrective action shall be taken. Supplemental stack concentration measurements may be required at the discretion of the appropriate TCEQ Regional Director.

C. The monitoring data shall be reduced to hourly average concentrations at least once every day, using normally a minimum of four equally spaced data points from each one hour period. The individual average concentrations shall be reduced to units of the permit allowable an emission rate in pounds per hour at least once every day. Pound per hour data shall be summed on a monthly basis to tons per year and used to determine compliance with the annual emissions limits of this permit.

If the CEMS malfunctions, then the recorded concentrations may be reduced to units of the permit allowable as soon as practicable after the CEMS resumes normal operation.

D. The Beaumont TCEQ Regional Office shall be notified at least 30 days prior to any required relative accuracy test audits in order to provide them the opportunity to observe the testing.

E. If applicable, each CEMS will be required to meet the design and performance specifications, pass the field tests, and meet the installation requirements, data analysis, and reporting requirements specified in the applicable performance specifications in 40 CFR Part 75, Appendix A and B, as an acceptable alternative to paragraph A. of this condition.

F. Each CEMS covered by the special condition shall be operational during 95 percent of the operating hours of the BFB Boiler, exclusive of the time required for zero and span checks. If this operational criteria is not met for the reporting quarter, the holder of this permit shall develop and implement a monitor quality improvement plan. The plan should address the downtime issues to improve availability and reliability. The plan should provide additional assurance of compliance including record keeping of reagent flow rates for monitor downtime periods.

29. The holder of this permit shall install, calibrate, operate, and maintain a continuous opacity monitoring system (COMS) to measure and record the opacity of emissions from EPN: BFB-1. The COMS data shall be used to determine continuous compliance with the opacity emission limitations in Special Condition No. 9.

A. The COMS shall satisfy all of the Federal NSPS requirements for COMS as specified in 40 CFR Part 60, Appendix B, Performance Specification 1 (PS-1). In order to demonstrate compliance with PS-1, the COMS shall meet the manufacturer's design and performance specifications, and undergo performance evaluation testing as outlined in 40 CFR Part 60, Subpart A, § 60.13. The TCEQ Regional Director shall be notified 30 days prior to the certification.

B. The COMS shall be zeroed and spanned daily as specified in 40 CFR Part § 60.13. Corrective action shall be taken when the 24 hour span drift exceeds two times the amounts specified in PS-1, or as specified by the TCEQ if not specified in PS-1.

C. If the EPA promulgates a quality assurance, quality control standard for the COMS, a Quality Assurance Plan (QAP) shall be prepared in accordance with the EPA standard for the COMS and adhered to, within six months after promulgation. The QAP shall be maintained to reflect changes to component technology. At the request of the TCEQ Regional Director, the holder of this permit shall submit documentation demonstrating compliance with these standards.

D. The data shall be reduced to six minute opacity averages, using a minimum of 36 equally spaced data points from each six minute period.

E. The COMS shall be operational during 95 percent of the operating hours of the BFB Boiler, exclusive of the time required for zero and span checks. If this operational criterion is not met for the reporting quarter, the holder of this permit shall develop and implement a monitor quality improvement plan. The plan should address the downtime issues to improve availability and reliability. The plan should provide additional assurance of compliance including EPA Reference Method 9 support

during daytime monitor downtime periods and parametric support for nighttime monitor downtime periods.

F. Recertification, if required, shall be based on the requirements of 40 CFR Part 60, Appendix B, PS-1 in effect at the time of initial certification.

30. The $NH_3$ concentration in the BFB Boiler (EPN: BFB-1) shall be corrected and reported in accordance with Special Condition No. 10. The $NH_3$ concentration shall be tested or calculated according to one of the methods and frequencies listed below. Notification shall be provided to the TCEQ Beaumont Regional Office at the pretest meeting which method is going to be used, and notified 30 days in advance if a different method is going to be used. **(12/10)**

A. The holder of this permit may install, calibrate, maintain, and operate a CEMS to measure and record the concentrations of aqueous $NH_3$. **(7/12)**

B. As an approved alternative, the $NH_3$ slip may be measured using a sorbent or stain tube device specific for $NH_3$ measurement in the 5 to 15 parts per million (ppm) range. A minimum of three stain tubes shall be used to obtain an average $NH_3$ slip. A plan for demonstrating the ability to accurately obtain accurate sorbent or stain tube readings shall be presented to and approved by the TCEQ Beaumont Regional Office. The plan shall address how the sample shall be extracted and handled as well as the frequency of initial testing required to document that operating procedures have been developed to prevent excess amounts of $NH_3$ from being introduced in the BFB boiler and when operation of the unit has been proven successful with regard to controlling $NH_3$ slip. Once testing demonstrates that operational procedures have been demonstrated to control the $NH_3$ slip, testing shall be required weekly. If the average sorbent or stain tube testing indicates an $NH_3$ slip concentration which exceeds 13 ppm for the BFB boiler, the permit holder shall begin $NH_3$ testing by either the Phenol-Nitroprusside Method, the Indophenol Method, or the EPA Conditional Test Method (CTM) 27 on a quarterly basis, in addition to the weekly sorbent or stain tube testing. The TCEQ Beaumont Regional Office shall be notified by phone when quarterly testing is required and when no longer required.

The quarterly testing of the BFB Boiler shall continue until such time as the quarterly testing indicates $NH_3$ slip is 12 ppm or less, the Phenol-Nitroprusside/Indophenol/CTM 27 tests may be suspended until sorbent or stain tube testing again indicate 13 ppm $NH_3$ slip or greater. **(12/10)**

C. As an approved alternative to sorbent or stain tube testing, $NH_3$ CEMS, or a second $NO_x$ CEMS, the permit holder may install and operate a dual stream system of $NO_x$ CEMS in the BFB Boiler stack. One of the exhaust streams would be routed, in an unconverted state, to one $NO_x$ CEMS and the other exhaust stream would be routed through $NH_3$ converter to convert $NH_3$ to $NO_x$ and then to a second $NO_x$ CEMS. The $NH_3$ slip concentration shall be calculated from the delta between the two $NO_x$ CEMS readings (converted and unconverted). **(12/10)**

D. Any other method used for measuring $NH_3$ slip shall require prior approval from the TCEQ Beaumont Regional Director.

31. If any emission monitor fails to meet specified performance, it shall be repaired or replaced as soon as reasonably possible.

32. After the initial demonstration of compliance, stack sampling of EPN: BFB-1 for $H_2SO_4$, HCl, Hg, VOC, and total PM/$PM_{10}$ shall be used to demonstrate continuous compliance and shall meet the following specifications:

    A. Stack sampling shall be performed once annually during periods of normal operation, except as follows:

        (1) If the annual test does not establish compliance with a performance standard of Special Condition No. 10, the holder of this permit may conduct additional tests (under similar operating conditions and fuel mixes as used during the initial test or under scenarios reviewed and approved by the TCEQ Regional Office) during the year to be averaged with the previous test(s) to demonstrate compliance; or

        (2) If, after two years of stack sampling, the average of the two annual stack sampling results for a pollutant is less than 70 percent of the applicable performance standard identified in Special Condition No. 10, then compliance stack sampling for such pollutant shall be conducted once every three years.

    B. Sampling required by this Special Condition shall demonstrate compliance with the performance standards of Special Condition No. 10 and the lb/hr emission limits of the MAERT applicable to normal operations.

    C. Sampling required by this Special Condition shall be conducted in accordance with the methods, procedures, and notification protocol specified in Special Condition No. 26.

    D. Ongoing compliance with the $H_2SO_4$, and HCl tons per year emission rates in the MAERT shall be demonstrated by calculating rolling 12-month annual emissions from emission factors (lb/MMBtu, HHV) obtained from the sampling required by this condition and the monthly total heat input (MMBtu, HHV) from biomass fuel.

33. Following the initial demonstration of compliance, ongoing compliance with the emission rates in the MAERT for the Cooling Tower (EPN: CT-1) will be based on inspection of modules during normal scheduled shutdowns, and repair as necessary to maintain drift eliminator structural integrity and minimize bypassing of flow around drift eliminators. **(12/10)**

**Maintenance Activities (12/13)**

34. Compliance with the emissions limits for planned maintenance activities for EPNs: BFB-1 identified in Attachment A may be demonstrated as follows:

    A. For each pollutant emitted during planned maintenance activities whose emissions are measured using a CEMS, the permit holder shall for each calendar month

compare the pollutant's short-term (hourly) emissions as measured by the CEMS to the applicable short-term planned MSS emissions limit in the MAERT.

B. For each pollutant emitted during planned maintenance activities whose emissions occur through a stack and are not measured using a CEMS the permit holder shall for each calendar month determine the total emissions of the pollutant.

C. Sum all emissions from planned maintenance activities on a 12-month rolling basis for each EPN to show compliance with the MAERT.

**As-Built Information**

35. The holder of this permit shall submit to the TCEQ Beaumont Regional Office and the TCEQ Air Permits Division change pages to the permit application reflective of the final plans and engineering specifications on the BFB Boiler, emergency generator engine, and other sources, including their respective control equipment, no later than 30 days before initial startup of the BFB Boiler. This information shall include:

A. All TCEQ Tables in the permit application, updated with manufacturer and other specified data;

B. Revised plot plans and equipment drawings as required to reflect the constructed facility; and

C. Identification of any maximum inputs of raw materials for the as-built facility, and any diesel fuel sulfur or engine manufacturer's emission specification that is lower than the values represented in the permit application and used for calculating or establishing emissions. Accompanying this information shall be a request for permit alteration.

The TCEQ shall alter the permit special conditions and MAERT to reflect any such reduction in emissions. Increases in allowable emission rates require a permit amendment before construction begins. A permit amendment or alteration is not required if the as-built changes(s) to the facility qualify for a De Minimis listing or permit-by-rule under 30 TAC Chapter 106. **(7/12)**

**Natural Gas Fired Turbine (10/15)**

**Federal Applicability**

36. These facilities shall comply with applicable requirements of the EPA regulations on Standards of Performance for New Stationary Sources, 40 CFR Part 60:

A. Subpart A: General Provisions.

B. Subpart KKKK: Standards of Performance for Stationary Combustion Turbines.

If any condition of this permit is more stringent than the regulations so incorporated, then for the purposes of complying with this permit, the permit shall govern and be the standard by which compliance shall be demonstrated.

37. The fuel gas heater (EPN HTR1) shall comply with applicable requirements of the EPA regulations on National Emission Standards for Hazardous Air Pollutants (NESHAPS), Title 40 Code of Federal Regulations Part 63 (40 CFR Part 63):

    A. Subpart A: General Provisions.

    B. Subpart DDDDD: National Emission Standards for Industrial, Commercial, and institutional Boilers and Process Heaters

    If any condition of this permit is more stringent than the regulations so incorporated, then for the purposes of complying with this permit, the permit shall govern and be the standard by which compliance shall be demonstrated.

**Operating Specifications/Fuel Specifications**

38. This permit authorizes one Siemens F5 natural gas-fired combustion turbine generator (CTG) rated at a nominal electric output of approximately 232 MW and operating in simple cycle.

39. The turbine (EPN: CTG1-STK) shall not exceed the following emission limits expressed in parts per million by volume (ppmvd) dry at 15% $O_2$ subject to the following specifications:

| Pollutant | Concentration (ppmvd) | Averaging time |
|---|---|---|
| $NO_x$ | 9.0 | Rolling 4-hr average |
| CO | 9.0 | Rolling 3-hr average |

    A. Startup and shutdown periods as defined in this Special Condition are excluded. The emissions from startup and shutdown shall not exceed the hourly emission rates in the MAERT.

    B. Excess emissions caused by emission events are governed by 30 TAC Chapter 101.222.

    C. Emissions from maintenance activities (Attachment B) are excluded.

    D. Startup is defined as the period from when an initial flame detection signal is recorded in the plant's Data Acquisition and Handling System (DAHS) and ends when the CTG enters lean pre-mix operating mode. A startup shall not exceed 60 minutes.

    E. Shutdown begins when the DAHS receives a shutdown signal and exits the lean pre-mix operating mode. The shutdown ends when the flame detection signal is no longer recorded by the plant's DAHS. A shutdown shall not exceed 60 minutes.

F. Compliance with the 4-hour rolling $NO_x$ emission limit and the 3-hour rolling CO emission limit is based on emissions averaged over rolling four- or three-clock hour periods of normal operation as measured and recorded by the CEMS. Clock hours that contain startup or shutdown operations are not included in these periods and are subject to the MSS hourly mass emission limits in the MAERT.

G. The CTG shall be limited to no more than 2,500 hours of operation per year on a rolling 12-month average.

40. During normal operations, opacity of emissions from EPN: CTG1-STK stack authorized by this permit shall not exceed 5 percent averaged over a six-minute period. During periods of MSS operation of the turbine, the opacity shall not exceed 15 percent averaged over a six minute period. The permit holder shall demonstrate compliance with this Special Condition in accordance with the following procedures:

A. Visible emission observations shall be conducted and recorded at least once during each calendar quarter while each facility is in operation, unless the emission unit is not operating for the entire calendar quarter.

B. This determination shall be made by first observing for visible emissions while the turbine is in operation. Observations shall be made at least 15 feet and no more than 0.25 miles from the emission point. A certified opacity reader is not required for these visible emission observations.

C. If visible emissions are observed from the turbine, then the opacity shall be determined and documented within 24 hours for that emission point using 40 CFR Part 60, Appendix A, Reference Method 9.

D. If the opacity limitations of this Special Condition are exceeded, corrective action to eliminate the source of visible emissions shall be taken promptly and documented within one week of the first observation.

41. The CTG shall be limited to the use of pipeline quality natural gas containing no more than 1.0 grains total sulfur per 100 dry standard cubic feet (gr/100 dscf) on a short-term basis and a 0.25 gr/100 dscf on an annual basis.

**Initial Determination of Compliance**

42. Sampling ports and platforms shall be incorporated into the design of all exhaust stacks according to the specifications set forth in the manual entitled "Chapter 2, Stack Sampling Facilities." Alternate sampling facility designs may be submitted for approval by the TCEQ Regional Director.

43. The holder of this permit shall perform stack sampling and other testing as required to establish the actual quantities of air contaminants being emitted into the atmosphere from EPN: CTG1-STK to determine initial compliance with all emission limits established in this permit. Sampling shall be conducted in accordance with the appropriate procedures of the

TCEQ Sampling Procedures Manual and in accordance with the appropriate EPA Reference Methods to be determined during the pretest meeting.

A. Air contaminants and diluents to be sampled and analyzed on the gas turbine include (but are not limited to) $NO_x$, $O_2$, CO, VOC, $SO_2$, and $PM_{10}$.

B. The turbine shall be tested at or above 90% of maximum load operations. Each tested turbine load shall be identified in the sampling report. The permit holder shall present at the pretest meeting the manner in which stack sampling will be executed in order to demonstrate compliance with emission standards found in 39 CFR Part 60, Subpart KKKK.

C. Fuel sampling using the methods and procedures of 40 Code of Federal Regulations, Subpart KKKK may be conducted in lieu of stack sample for $SO_2$. If fuel sampling is used, compliance with NSPS Subpart KKKK, $SO_2$ limits shall be based on 100 percent conversion of the sulfur in the fuel to $SO_2$. Any deviations from those procedures must be approved by the Executive Director of the TCEQ prior to sampling. The TCEQ Executive Director or his designated representative shall be afforded the opportunity to observe all such sampling.

D. The holder of this permit is responsible for providing sampling and testing facilities and conducting the sampling and testing operations at his expense.

E. The TCEQ Beaumont Regional Office shall be contacted as soon as testing is scheduled but not less than 45 days prior to sampling to schedule a pretest meeting. The notice shall include:

(1) Date for pretest meeting.

(2) Date sampling will occur.

(3) Name of firm conducting sampling.

(4) Type of sampling equipment to be used.

(5) Method or procedure to be used in sampling.

(6) Procedure used to determine turbine loads during and after the sampling period.

The purpose of the pretest meeting is to review the necessary sampling and testing procedures, to provide the proper data forms for recording pertinent data, and to review the format procedures for submitting the test reports. A written proposed description of any deviation from sampling procedures specified in permit conditions, or the TCEQ or EPA sampling procedures shall be made available to the TCEQ prior to the pretest meeting. The TCEQ Regional Director shall approve or disapprove of any deviation from specified sampling procedures. Requests to waive testing for any pollutant specified in this condition shall be submitted to the TCEQ Office of Air, Air Permits Division. Test waivers and alternate or equivalent procedure proposals for NSPS testing which must have EPA approval shall be submitted to the EPA and copied to TCEQ Regional Director.

F. Sampling as required by this condition shall occur within 60 days after achieving the maximum production rate at which the turbine will be operated, but no later than 180 days after initial start-up of the unit. Additional sampling may be required by TCEQ or EPA.

G. Within 60 days after the completion of the testing and sampling required herein, a copy of the sampling report shall be sent to the TCEQ Beaumont Regional Office.

**Continuous Determination of Compliance**

44. The holder of this permit shall install, calibrate, maintain, and operate a CEMS to measure and record the concentrations of $NO_x$, CO, and diluent ($O_2$ or $CO_2$) in the stack (EPN: CTG1-STK).

A. Monitored $NO_x$ and CO concentrations shall be corrected and reported in dimensional units corresponding to the emission rate and concentration limits established in this permit.

B. The CEMS data shall be used to demonstrate compliance with the emission limitations in Special Condition No. 39 and the MAERT.

C. The $NO_x$/diluent CEMS shall be operated according to the methods and procedures as set out in 40 CFR § 60.4345 and the reporting of monitoring data shall be in accordance with 40 CFR § 60.4380(b).

D. The CO CEMS shall meet the appropriate quality-assurance requirements specified in 40 CFR Part 60, Appendix F, Procedure 1. Each CO monitor shall be quality-assured at least quarterly using Cylinder Gas Audits (CGA) in accordance with 40 CFR Part 60, Appendix F, Procedure 1, Section 5.1.2, with the following exception: a relative accuracy test audit is not required once every four quarters if four successive quarterly CGA have been conducted for that four-quarter period. An equivalent quality-assurance method approved by the TCEQ may also be used. Successive quarterly audits shall occur at least two months apart.

E. The TCEQ Beaumont Regional Office shall be notified at least 21 days prior to any required relative accuracy test audit in order to provide them the opportunity to observe testing.

45. The permit holder shall additionally install, calibrate, maintain, and operate continuous monitoring systems to monitor and record the average hourly natural gas consumption of the CTG. The permit holder shall comply with the initial certification and quality assurances as specified in 40 CFR Part 75, Appendix D.

**Maintenance**

46. Compliance with the emissions limits for planned maintenance activities for EPNs: CTG1-STK and MSS-FUG identified in Attachment B may be demonstrated as follows:

A. For each pollutant emitted during planned maintenance activities whose emissions are measured using a CEMS, the permit holder shall for each calendar month compare the pollutant's short-term (hourly) emissions as measured by the CEMS to the applicable short-term planned MSS emissions limit in the MAERT.

B. For each pollutant emitted during planned maintenance activities whose emissions are not recorded by a CEMS, the permit holder shall for each calendar month determine the total emissions of the pollutant.

C. Sum all emissions from planned maintenance activities on a 12-month rolling basis for each EPN to show compliance with the MAERT.

**Recordkeeping Requirements**

**Biomass Boiler**

47. The following records shall be kept at the plant for the life of the permit. All records required in this permit shall be made available at the request of personnel from the TCEQ, the EPA, or any air pollution control agency with jurisdiction.

    A. A copy of this permit.

    B. Permit application dated December 22, 2005, and subsequent representations submitted to the TCEQ.

    C. A complete copy of the testing reports and records of the initial air emissions performance testing completed pursuant to the Initial Demonstration of Compliance.

    D. Required stack sampling results or other air emissions testing (other than CEMS or COMS data) that may be conducted on units authorized under this permit after the date of issuance of this permit.

48. The following records shall be kept for a minimum of five years after collection and shall be made immediately available upon request to representatives of the TCEQ, the EPA, or any local air pollution control program having jurisdiction. Records shall be legible and maintained in an orderly manner. The following records shall be maintained:

    A. Continuous emission and opacity monitoring data for opacity, $NO_x$, CO, $SO_2$, $NH_3$, and diluent gases, $O_2$ or $CO_2$, from CEMS to demonstrate compliance with the emission rates listed in the MAERT and performance standards listed in this permit for pollutants that are monitored by CEMS or COMS. Data retention at intervals less than one hour is not required. Records should identify the times when emissions data have been excluded from the calculation of average emission rates because of start-up, shutdown and maintenance along with the justification for excluding data. Records should also identify factors used in calculations that are used to demonstrate compliance with emissions limits and performance standards;

B. Files of all CEMS or COMS quality-assurance measures, calibration checks, adjustments, and maintenance performed on these systems;

C. Tons of biomass fuel received at the site monthly to show compliance with the throughput requirements of this permit;

D. Records of cleaning and maintenance performed on abatement equipment, including records of replacement maintenance performed on baghouses and conveyors. A log should be kept with descriptions of the activity performed and the time period over which it was performed;

E. Records required to show compliance with 40 CFR Part 60, Subpart Db, including records of required reporting; **(12/10)**

F. Records of daily road maintenance for dust control to show compliance with Special Condition No. 19;

G. Records of audio, olfactory, and visual checks for ammonia leaks and repairs to show compliance with Special Condition No. 16;

H. Hours of operation of the propane vaporizer to demonstrate compliance with the hourly operating limitation in Special Condition No. 8; and **(12/10)**

I. Records of quarterly visible emission checks and opacity measurements (as needed) required by Special Condition No. 24. **(12/10)**

J. Records of emissions from non-MSS and MSS for the boiler kept on a monthly basis. These must be summed on a rolling 12-month basis to demonstrate compliance with the ton per year emission limits on the MAERT. **(12/13)**

**Natural Gas Fired Turbine (10/15)**

49. The following records shall be kept at the plant for the life of the permit. All records required in this permit shall be made available at the request of personnel from the TCEQ, EPA, or any air pollution control agency with jurisdiction:

    A. A copy of this permit.

    B. Permit application dated January 14, 2014, and subsequent representations submitted to the TCEQ.

    C. A complete copy of the testing reports and records of the initial performance testing completed pursuant to Special Condition No. 43 to demonstrate initial compliance.

    D. Stack sampling results or other air emissions testing (other than CEMS data) that may be conducted on units authorized under this permit after the date of issuance of this permit.

50. The following information shall be maintained by the holder of this permit in a form suitable for inspection for a period of five years after collection and shall be made available upon request to representatives of the TCEQ, EPA, or any local air pollution control program having jurisdiction:

A. The CEMS data of $NO_x$, CO, and $O_2$ emissions from EPN: CTG1-STK to demonstrate compliance with the emission rates listed in the MAERT and Special Condition No. 39.

B. Raw data files of all CEMS data including calibration checks, adjustments, and maintenance performed on these systems in an electronic form suitable for inspection.

C. Records of hours of operation of the CTG.

D. Records of dates and times for startups and shutdowns of the CTG.

E. Records of the amount of natural gas fired monthly in the CTG.

F. Records of visible emissions and opacity observations and any corrective action taken to demonstrate compliance with Special Condition No. 40.

G. Records of monitored or calculated maintenance emissions to demonstrate compliance with Special Condition No. 46.

**Reporting for BFB and Turbine**

51. The holder of this permit shall submit to the TCEQ Beaumont Regional Office and the Air Enforcement Branch of EPA in Dallas quarterly reports as described in 40 CFR § 60.7. Such reports are required for each emission unit which is required to be continuously monitored pursuant to this permit.

Attachment A

Permit Numbers 77679 and PSDTX1061M1

| Planned Maintenance Activities for Boiler | | | | | | | |
|---|---|---|---|---|---|---|---|
| Activity | EPN | Emissions | | | | | |
| | | $NO_x$ | CO | VOC | PM | SO2 | $NH_3$ |
| Boiler General Maintenance[1] | BFB-1 | | | | X | | |
| On-line ammonia injection system maintenance and tuning[2] | BFB-1 | | | | X | | |
| Use of fans during maintenance - unit off-line | BFB-1 | | | | X | | |
| Combustion Optimization[3] | BFB-1 | X | X | X | X | X | X |

Date: December 9, 2013

[1] Includes but is not limited to sand change out, refractory change-out, fan maintenance/balancing, maintenance of the damper/air/heater/soot blower, and any other general maintenance that does not exceed the worst case emission representations in the application.

[2] Includes, but is not limited to replacement, cleaning, activation, and deactivation of SNCR and oxidation catalyst.

[3] Includes, but is not limited to the following: (a) leak and operability checks (e.g. trouble shooting), (b) balancing, (c) tuning activities that occur during seasonal tuning or after initial construction, a combustor change out, a major repair/maintenance to a combustor, or other similar circumstances.

Attachment B

Permit Numbers 77679 and PSDTX1061M1

| Maintenance Activities for Gas Fired Turbine | | | | | | |
|---|---|---|---|---|---|---|
| Activities | EPN | Emissions | | | | |
| | | $NO_x$ | CO | VOC | PM | $SO_2$ |
| Combustion unit tuning[1] | CTG1-STK | X | X | X | X | X |
| Turbine washing (online) | CTG1-STK | | | | X | |
| Gaseous fuel venting[2] | MSS-FUG | | | X | | |
| Turbine washing (offline) | MSS-FUG | | | X | | |
| Miscellaneous PM filter maintenance[3] | MSS-FUG | | | | X | |
| Storage vessel maintenance (<0.5 psia VP) | MSS-FUG | | | X | | |
| Management of sludge from pits, ponds, sumps, and water conveyances[4] | MSS-FUG | | | X | | |
| Organic chemical usage | MSS-FUG | | | X | | |
| Inspection, repair, replacement, adjusting, testing, and calibration of analytical equipment, process instruments including sight glasses, meters, gauges, CEMS, PEMS | MSS-FUG | X | X | X | | |
| Small equipment and fugitive component repair/replacement in VOC service[5] | MSS-FUG | | | X | | |

Date: October 14, 2015

[1] Includes, but is not limited to: leak operability checks (*e.g. turbine overspeed test, troubleshooting*), seasonal tuning, and balancing.

[2] Includes, but is not limited to: venting prior to pipeline pigging and meter proving.

[3] Includes, but is not limited: process-related building filters and combustion turbine air intake filters

[4] Includes, but is not limited to: management. by vacuum truck/dewatering of material in open pits/ponds/sumps/tanks and other closed or open vessels. Material managed include water and sludge materials containing miscellaneous VOCs such as diesel, lube oil, and other waste oils.

[5] Includes, but is not limited to: (1) repair/replacement of pumps, compressors, valves, pipes, flanges, transport lines, filters/screens in natural gas, fuel oil, diesel oil, ammonia, lube oil, and gasoline service; (2) vehicle and mobile equipment maintenance that may involve small VOC emissions, such as oil changes and transmission/hydraulic system service.

Emission Sources - Maximum Allowable Emission Rates

Permit Numbers 77679 and PSDTX1061M1

This table lists the maximum allowable emission rates and all sources of air contaminants on the applicant's property covered by this permit. The emission rates shown are those derived from information submitted as part of the application for permit and are the maximum rates allowed for these facilities, sources, and related activities. Any proposed increase in emission rates may require an application for a modification of the facilities covered by this permit.

Air Contaminants Data

| Emission Point No. (1) | Source Name (2) | Air Contaminant Name (3) | Emission Rates (7) | |
|---|---|---|---|---|
| | | | lb/hr | TPY (5) |
| BFB-1 | Bubbling Fluidized Bed Boiler (6) 1374 MMBtu/hr | $NO_x$ | 137.0 | 602.0 |
| | | $NO_x$ (MSS) | 250.0 | - |
| | | CO | 227.0 | 903.0 |
| | | CO (MSS) | 454.0 | - |
| | | VOC | 20.0 | 78.0 |
| | | VOC (MSS) | 40.0 | - |
| | | PM | 50.05 | 193.0 |
| | | $PM_{10}$ | 46.12 | 193.0 |
| | | $PM_{2.5}$ | 44.43 | 193.0 |
| | | $SO_2$ | 474.0 | 277.0 |
| | | $H_2SO_4$ | 3.6 | 6.02 |
| | | $H_2SO_4$ (MSS) | 4.3 | - |
| | | $NH_3$ | 18.0 | 55.0 |
| | | $NH_3$ (MSS) | 19.0 | - |
| | | HCl | 97.5 | 120.4 |
| | | Pb | 0.1 | 0.3 |
| | | Hg | 0.004 | 0.018 |

Emission Sources - Maximum Allowable Emission Rates

| Emission Point No. (1) | Source Name (2) | Air Contaminant Name (3) | Emission Rates (7) | |
|---|---|---|---|---|
| | | | lb/hr | TPY (5) |
| PROPHTR | Propane Heater 5 MMBtu/hr | $NO_x$ | 0.53 | 0.23 |
| | | CO | 0.19 | 0.08 |
| | | VOC | 0.01 | <0.01 |
| | | PM | 0.03 | 0.01 |
| | | $PM_{10}$ | 0.03 | 0.01 |
| | | $PM_{2.5}$ | 0.03 | 0.01 |
| | | $SO_2$ | 0.04 | 0.02 |
| PROP-FUG-1 | Propane Piping Fugitives (4) | VOC | 0.43 | 1.91 |
| $NH_3$-FUG-1 | Aqueous Ammonia Fugitives (4) | $NH_3$ | 0.02 | 0.08 |
| LVSTG-1 | Steam Turbine Lube Oil Vent | VOC | <0.01 | 0.04 |
| CT-1 | Cooling Tower | PM | 0.78 | 3.40 |
| | | $PM_{10}$ | 0.44 | 1.94 |
| | | $PM_{2.5}$ | 0.11 | 0.50 |
| TK-DSL-1 | Firewater Pump Diesel Tank | VOC | 0.01 | <0.01 |
| TK-DSL-2 | Emergency Engine Diesel Tank | VOC | 0.27 | <0.01 |
| TK-DSL-3 | General Plant Use Diesel Fuel Tank | VOC | 0.31 | <0.01 |
| TRK | Truck Unloader/Receiving | PM | 0.32 | <0.01 |
| | | $PM_{10}$ | 0.15 | 0.05 |
| | | $PM_{2.5}$ | 0.02 | <0.01 |
| WDPROC-FUG | Wood Processing Building Fugitives (4) | PM | 0.31 | 0.32 |
| | | $PM_{10}$ | 0.13 | 0.14 |
| | | $PM_{2.5}$ | 0.02 | 0.02 |

Emission Sources - Maximum Allowable Emission Rates

| Emission Point No. (1) | Source Name (2) | Air Contaminant Name (3) | Emission Rates (7) | |
|---|---|---|---|---|
| | | | lb/hr | TPY (5) |
| WDPROC-DC | Wood Processing Building Dust Collector | PM | 0.06 | 0.06 |
| | | $PM_{10}$ | 0.03 | 0.03 |
| | | $PM_{2.5}$ | <0.01 | <0.01 |
| TR-1 | Wood Chips to Conveyors 1A & 1B | PM | 0.04 | 0.05 |
| | | $PM_{10}$ | 0.014 | 0.016 |
| | | $PM_{2.5}$ | <0.01 | <0.01 |
| TR-2 | Conveyors 1A & 1B to Conveyor 2 Transfer | PM | 0.04 | 0.05 |
| | | $PM_{10}$ | 0.014 | 0.016 |
| | | $PM_{2.5}$ | <0.01 | <0.01 |
| TR-3 | Conveyors 3 to Conveyor 5 Transfer | PM | 0.021 | 0.02 |
| | | $PM_{10}$ | 0.007 | <0.01 |
| | | $PM_{2.5}$ | <0.01 | <0.01 |
| TR-4 | Conveyor 4 to Conveyor 5 Transfer | PM | 0.021 | 0.02 |
| | | $PM_{10}$ | <0.01 | <0.01 |
| | | $PM_{2.5}$ | <0.01 | <0.01 |
| TR-5 | Conveyor 5 to Conveyor 6 & 7 Transfer/Bypass | PM | 0.042 | 0.05 |
| | | $PM_{10}$ | 0.014 | 0.016 |
| | | $PM_{2.5}$ | <0.01 | <0.01 |
| TR-6 | Conveyor 6 to Radical Stacker | PM | 0.04 | 0.05 |
| | | $PM_{10}$ | 0.014 | 0.016 |
| | | $PM_{2.5}$ | <0.01 | <0.01 |

Emission Sources - Maximum Allowable Emission Rates

| Emission Point No. (1) | Source Name (2) | Air Contaminant Name (3) | Emission Rates (7) | |
|---|---|---|---|---|
| | | | lb/hr | TPY (5) |
| TR-7 | Autoreclaimer to Conveyor 8 | PM | 0.014 | 0.02 |
| | | $PM_{10}$ | <0.01 | <0.01 |
| | | $PM_{2.5}$ | <0.01 | <0.01 |
| TR-8 | Underground Pile Reclaim to Conveyor 8 | PM | 0.014 | 0.02 |
| | | $PM_{10}$ | <0.01 | <0.01 |
| | | $PM_{2.5}$ | <0.01 | <0.01 |
| TR-9 | Conveyor 8 to Conveyor 9 Transfer | PM | 0.014 | 0.05 |
| | | $PM_{10}$ | <0.01 | 0.016 |
| | | $PM_{2.5}$ | <0.01 | <0.01 |
| TR-10 | Conveyor 9 to Conveyor 10 & 11 | PM | 0.014 | 0.05 |
| | | $PM_{10}$ | <0.01 | 0.016 |
| | | $PM_{2.5}$ | <0.01 | <0.01 |
| TR-11 | Underground Pile Reclaim to Conveyor 14 | PM | 0.014 | 0.05 |
| | | $PM_{10}$ | <0.01 | 0.016 |
| | | $PM_{2.5}$ | <0.01 | <0.01 |
| C-2 | Conveyor from Receiving | PM | 0.149 | 0.17 |
| | | $PM_{10}$ | 0.05 | 0.06 |
| | | $PM_{2.5}$ | <0.01 | <0.01 |
| C-5 | Wood Processing to Stockpile Area Conveyor | PM | 0.16 | 0.18 |
| | | $PM_{10}$ | 0.05 | 0.06 |
| | | $PM_{2.5}$ | <0.01 | <0.01 |

Emission Sources - Maximum Allowable Emission Rates

| Emission Point No. (1) | Source Name (2) | Air Contaminant Name (3) | Emission Rates (7) | |
|---|---|---|---|---|
| | | | lb/hr | TPY (5) |
| C-6 | Conveyor to Autopile | PM | 0.10 | 0.12 |
| | | $PM_{10}$ | 0.033 | 0.039 |
| | | $PM_{2.5}$ | <0.01 | <0.01 |
| C-8 | Conveyor from Autopile | PM | 0.034 | 0.12 |
| | | $PM_{10}$ | 0.01 | 0.04 |
| | | $PM_{2.5}$ | <0.01 | <0.01 |
| C-10/11 | Conveyors to Feed Silos | PM | 0.063 | 0.22 |
| | | $PM_{10}$ | 0.02 | 0.07 |
| | | $PM_{2.5}$ | <0.01 | 0.01 |
| FSILO 1 | Boiler Feed Silo 1 | PM | 0.51 | 0.23 |
| | | $PM_{10}$ | 0.51 | 0.23 |
| | | $PM_{2.5}$ | 0.08 | 0.03 |
| FSILO 2 | Boiler Feed Silo 2 | PM | 0.343 | 0.15 |
| | | $PM_{10}$ | 0.343 | 0.15 |
| | | $PM_{2.5}$ | 0.05 | 0.02 |
| LIME-DC | Hydrated Lime Silo Dust Collector | PM | 0.086 | 0.038 |
| | | $PM_{10}$ | 0.086 | 0.038 |
| | | $PM_{2.5}$ | 0.01 | <0.01 |
| FA-DC2 | Fly Ash Silo Loadout Dust Collector | PM | 0.04 | 0.019 |
| | | $PM_{10}$ | 0.04 | 0.019 |
| | | $PM_{2.5}$ | <0.01 | <0.01 |

Emission Sources - Maximum Allowable Emission Rates

| Emission Point No. (1) | Source Name (2) | Air Contaminant Name (3) | Emission Rates (7) | |
|---|---|---|---|---|
| | | | lb/hr | TPY (5) |
| FA-FUG | Fly Ash Silo Truck Loading Fugitives (4) | PM | 0.31 | 0.04 |
| | | $PM_{10}$ | 0.08 | 0.011 |
| | | $PM_{2.5}$ | 0.01 | <0.01 |
| BA-FUG | Bottom Ash Truck Loading Fugitives (4) | PM | <0.01 | <0.01 |
| | | $PM_{10}$ | <0.01 | 0.01 |
| | | $PM_{2.5}$ | 0.01 | <0.01 |
| AUTOPILE | Wood Storage Auto Pile | PM | 0.38 | 0.50 |
| | | $PM_{10}$ | 0.18 | 0.24 |
| | | $PM_{2.5}$ | 0.03 | 0.04 |
| MANPILE | Wood Storage Manual Pile | PM | 0.65 | 0.86 |
| | | $PM_{10}$ | 0.31 | 0.41 |
| | | $PM_{2.5}$ | 0.05 | 0.06 |

Emission Sources - Maximum Allowable Emission Rates

| Emission Point No. (1) | Source Name (2) | Air Contaminant Name (3) | Emission Rates (7) | |
|---|---|---|---|---|
| | | | lb/hr | TPY (5) |
| CTG1-STK | Combustion Turbine Unit 1 (Siemens F5) (6) | $NO_x$ | 78.00 | 108.58 |
| | | $NO_x$ (MSS) | 146.80 | - |
| | | CO | 45.93 | 829.21 |
| | | CO (MSS) | 3759.74 | - |
| | | VOC | 5.73 | 95.50 |
| | | VOC (MSS) | 430.88 | - |
| | | PM | 12.09 | 12.94 |
| | | $PM_{10}$ | 12.09 | 12.94 |
| | | $PM_{2.5}$ | 12.09 | 12.94 |
| | | $SO_2$ | 6.29 | 3.14 |
| | | $H_2SO_4$ | 2.89 | 1.44 |
| CTG1LO-VNT | Combustion Turbine Unit 1 Lube Oil Vent | VOC | 0.06 | 0.27 |
| | | PM | 0.06 | 0.27 |
| | | $PM_{10}$ | 0.06 | 0.27 |
| | | $PM_{2.5}$ | 0.06 | 0.27 |
| HTR1 | Fuel Gas Heater | $NO_x$ | 0.27 | 0.34 |
| | | CO | 0.23 | 0.28 |
| | | VOC | 0.01 | 0.02 |
| | | PM | 0.02 | 0.03 |
| | | $PM_{10}$ | 0.02 | 0.03 |
| | | $PM_{2.5}$ | 0.02 | 0.03 |
| | | $SO_2$ | 0.01 | <0.01 |
| VOC-FUG | VOC Fugitives (4) | VOC | 0.14 | 0.62 |

Emission Sources - Maximum Allowable Emission Rates

| Emission Point No. (1) | Source Name (2) | Air Contaminant Name (3) | Emission Rates (7) | |
|---|---|---|---|---|
| | | | lb/hr | TPY (5) |
| MSS-FUG | ILE Maintenance Fugitives (4) | $NO_x$ | <0.01 | <0.01 |
| | | CO | <0.01 | <0.01 |
| | | VOC | 14.32 | 0.83 |
| | | PM | 0.05 | 0.01 |
| | | $PM_{10}$ | 0.05 | 0.01 |
| | | $PM_{2.5}$ | 0.05 | 0.01 |

(1) Emission point identification - either specific equipment designation or emission point number from plot plan.
(2) Specific point source name. For fugitive sources, use area name or fugitive source name.
(3) VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1
$NO_x$ - total oxides of nitrogen
$SO_2$ - sulfur dioxide
PM - total particulate matter, suspended in the atmosphere, including $PM_{10}$ and $PM_{2.5}$, as represented
$PM_{10}$ - total particulate matter equal to or less than 10 microns in diameter, including $PM_{2.5}$, as represented
$PM_{2.5}$ - particulate matter equal to or less than 2.5 microns in diameter
CO - carbon monoxide
$H_2SO_4$ - sulfuric acid mist
HCl - hydrogen chloride
$NH_3$ - ammonia
Pb - lead
Hg - mercury
MSS - maintenance, startup, and shutdown
(4) Fugitive emissions are an estimate only and should not be considered as a maximum allowable emission rate.
(5) Compliance with annual emission limits (tons per year) is based on a 12 month rolling period.
(6) Planned maintenance, startup and shutdown (MSS) pound per hour (lb/hr) emissions for all pollutants are authorized even if not specifically identified as MSS. During any clock hour that includes one or more minutes of planned MSS that pollutant's maximum hourly emission rate shall apply during that clock hour.
(7) The lb/hr and ton per year include emissions from maintenance, startup and shutdown unless specified otherwise.

Date: July 20, 2016